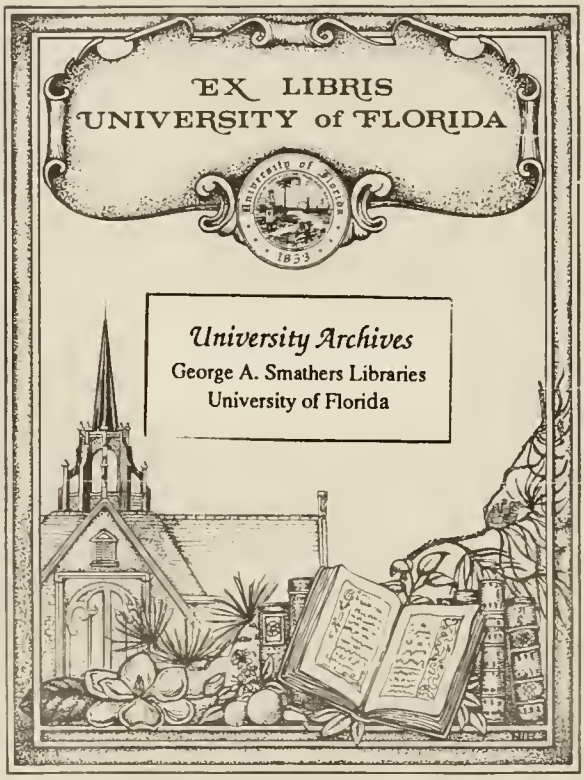
U378
FHU
V.74
SER.1
NO.2
JUNE
1979

**THE UNIVERSITY RECORD**

1979-1980 COLLEGE OF MEDICINE CATALOG-UNIVERSITY OF FLORIDA


EX LIBRIS
UNIVERSITY of FLORIDA
University Archives
George A. Smathers Libraries
University of Florida

1979-1980

THE UNIVERSITY RECORD
J. HILLIS MILLER HEALTH CENTER
UNIVERSITY OF FLORIDA, GAINESVILLE

# COLLEGE OF MEDICINE CATALOG

W378
F6
v.74
Ser 1
no.2
June
1979

The University of Florida College of Medicine is an equal opportunity employer within the meaning of Title VII of the Civil Rights Act of 1964.

**Volume LXXIV Series 1, No. 2, June 1979**
Published quarterly by the University of Florida, Gainesville, Florida, 32611. Office of Publications, Gainesville, Florida 32611. Second-class postage paid at Gainesville, Florida 32601.

This publication has been adopted as a rule of the University pursuant to the provisions of Chapter 120 of the Florida Statute. Addenda to the University Record Series, if any, are available upon request to the Office of the Registrar.

This public document was promulgated at a cost of $6,714.73 or $2.24 per copy to counsel and inform prospective medical students and others interested in the educational programs of the College of Medicine.

# STATE OF FLORIDA

**Robert Graham**
Governor

# BOARD OF REGENTS

**DuBose Ausley**
Tallahassee

**Marshall M. Criser**
Palm Beach

**J. J. Daniel**
Jacksonville

**Murray H. Dubbin**
Miami

**James J. Gardner**
Chairman/Ft. Lauderdale

**John Goldsmith**
Student Regent

**Dr. William L. Maloy**
Pensacola

**Jack McGriff**
Vice Chairman/Gainesville

**Terrell Sessums**
Tampa

**Betty Anne Staton**
Orlando

**E. T. York, Jr., Ph.D.**
Chancellor, State University System

# UNIVERSITY OF FLORIDA

**Robert Q. Marston, M.D.**
President

**Louis V. Voyles, B.A.**
Registrar

**William B. Deal, M.D.**
Vice President for Health Affairs and
Dean, College of Medicine

# MEDICAL ADVISORY COMMITTEE

**Henry J. Babers, Jr., M.D.**
Gainesville

**Jean L. Bennett, M.D.**
Clearwater

**James L. Borland, M.D.**
Jacksonville

**James W. Clower, Jr., M.D.**
Daytona Beach

**Charles K. Donegan, M.D.**
St. Petersburg

**Richard M. Fleming, M.D.**
Miami Beach

**Emmett F. Ferguson, Jr., M.D.**
Jacksonville

**David C. Lane, M.D.**
Ft. Lauderdale

**Sam H. Moorer, Jr., M.D.**
Tallahassee

**Louis C. Murray, M.D.**
Chairman/Orlando

**John H. Whitcomb, M.D.**
Pensacola

**Robert E. Windom, M.D.**
Sarasota

# ACADEMIC CALENDAR 1979 - 1980

**ALL CLASSES**

| | |
|---|---|
| Registration | Wednesday, September 5, 1979 |
| Homecoming | Friday Noon, October 26, 1979<br>Saturday, October 27, 1979 |
| Veterans Day | Monday, November 12, 1979 |
| Thanksgiving | Wednesday, 6:30 p.m., November 21<br>to Monday, November 26, 1979 |

**FIRST YEAR (Class of 1983)**

**Phase A**
**1st Quarter**

| | |
|---|---|
| Orientation | Tuesday - Friday, September 4-7, 1979 |
| Classes Begin | Monday, September 10, 1979 |
| Quarter Ends | Friday, December 21, 1979 |

**2nd Quarter**

| | |
|---|---|
| Classes Begin | Wednesday, January 2, 1980 |
| Quarter Ends | Friday, March 21, 1980 |

**3rd Quarter**

| | |
|---|---|
| Classes Begin | Monday, March 31, 1980 |
| Quarter Ends | Friday, June 20, 1980 |

**SECOND YEAR (Class of 1982)**

**Phase B**
**1st Quarter**

| | |
|---|---|
| Classes Begin | Tuesday, September 4, 1980 |
| Quarter Ends | Friday, December 14, 1980 |

**2nd Quarter**

| | |
|---|---|
| Classes Begin | Wednesday, January 2, 1980 |
| Quarter Ends | Friday, March 14, 1980 |
| **Clinical Rotations** | Monday, March 24, 1980 |

**THIRD YEAR (Class of 1981)**

**Phase B (continued)**

| | |
|---|---|
| **Clinical Rotations End** | Friday, December 15, 1979 |

**Phase C**

| | |
|---|---|
| Classes Begin | Wednesday, January 2, 1980 |

**FOURTH YEAR (Class of 1980)**

**Phase C (continued)**

| | |
|---|---|
| Classes End | Friday, May 30, 1980 |
| **Commencement** | Saturday, May 31, 1980 |

# TABLE OF CONTENTS


8 Dean's Staff
10 Departmental Chairman

13 **GENERAL CONSIDERATIONS**

13 Educational Concerns
14 Students
14 Faculty
14 Research
15 Facilities

16 **ACADEMIC CONSIDERATIONS**

16 The Continuum of Medical Education
17 The Art and Science of Medicine
18 Flexibility of Programs
19 Junior Honors Medical Program
20 Program in Medical Sciences (PIMS)
21 Jacksonville Health Education Programs (JHEP)
21 Pensacola Educational Program (PEP)
22 Community Medicine
25 Preprofessional Education
25 The Applicant Pool
26 Basic Science Requirements
27 Medical College Admission Test
28 Application and Acceptance Procedures
29 Professional Education Leading to the M.D. Degree
29 Phase A
30 Phase B
32 Phase C
33 Evaluation
34 Student Conduct Code
35 Graduate and Postgraduate Programs
35 Graduate Education in the Medical Sciences
35 Programs Leading to the Ph.D. and M.S. Degrees
36 Medical Scientist Training Program (Combined M.D.-Ph.D. Degree)
37 Graduate Medical Education (Residencies and Fellowships)
38 Licensure
39 Continuing Education

40 **STUDENT INFORMATION**

40 Financial Considerations
43 Scholarships
44 Scholastic Awards
46 Loan Fund
48 Fellowships
49 Living Accommodations

51 **COURSE DESCRIPTIONS**

51 Phase A
52 Phase B
53 Phase C
54 Graduate Courses in the Medical Sciences
54 Anatomy
56 Biochemistry and Molecular Biology
56 Immunology and Medical Microbiology
60 Neuroscience
62 Pathology
64 Pharmacology and Therapeutics
65 Physiology
67 Undergraduate Courses
68 Interdisciplinary Major in Biochemical and Neural Sciences

71 **ACADEMIC PERSONNEL**

71 Faculty

101 **STUDENTS**

101 Medical Students
107 Graduate Students

# DEAN'S STAFF

WILLIAM B. DEAL, M.D.
Vice President for Health Affairs and
Dean, College of Medicine

J. LEE DOCKERY, M.D.
Associate Dean for
Academic Affairs

HUGH M. HILL, M.D.
Associate Dean for Student and
Alumni Affairs

JAMES P. McLEAN, M.B.A.
Associate Dean for Administration

LAMAR CREVASSE, M.D.
Assistant Dean for
Continuing Medical Education

JAMES A. DEYRUP, Ph.D.
Assistant Dean for
Preprofessional Education

MELVIN FRIED, Ph.D.
Assistant Dean for Graduate
Medical Education

J. OCIE HARRIS, M.D.
Chairman Medical Selection
Committee

R. M. WHITTINGTON, M.D.
Assistant Dean for VA
Hospital Relations

WILLIAM C. RUFFIN, M.D.
Assistant Dean for Clinical
Affairs

ROBERT H. REEVES, Ph.D.
Assistant Dean for
Tallahassee Program

MAX MICHAEL, JR., M.D.
Assistant Dean for
Jacksonville Programs

## DEPARTMENTAL CHAIRMEN

**First Row**

ROSS, MICHAEL H., Ph.D.
Chairman, Department of Anatomy

MODELL, JEROME H., M.D.
Chairman, Department of Anesthesiology

YOUNG, MICHAEL, M.D.
Chairman, Department of Biochemistry
and Molecular Biology

COBLE, YANK D., JR., M.D.
Chairman, Department of Community Health
and Family Medicine

BERNS, KENNETH I., M.D., Ph.D.
Chairman, Department of Immunology
and Medical Microbiology

McGUIGAN, JAMES E., M.D.
Chairman, Department of Medicine

**Second Row**

GREER, MELVIN, M.D.
Chairman, Department of Neurology

LUTTGE, WILLIAM G., Ph.D.
Acting Chairman, Department of Neuroscience

FRIEDRICH, EDUARD G., M.D.
Chairman, Department of Obstetrics & Gynecology

RUBIN, MELVIN L., M.D.
Chairman, Department of Ophthalmology

ENNEKING, WILLIAM F., M.D.
Chairman, Department of Orthopaedic Surgery

SMITH, RICHARD T., M.D.
Chairman, Department of Pathology

**Third Row**

SCHIEBLER, GEROLD L., M.D.
Chairman, Department of Pediatrics

NEIMS, ALLEN H., M.D., Ph.D.
Chairman, Department of Pharmacology and
Therapeutics

OTIS, ARTHUR B., Ph.D.
Acting Chairman, Department of Physiology

ADAMS, JOHN E., M.D.
Chairman, Department of Psychiatry

WILLIAMS, CLYDE M., M.D., Ph.D.
Chairman, Department of Radiology

WOODWARD, EDWARD R., M.D.
Chairman, Department of Surgery

NO SMOKING
OXYGEN IN USE

# GENERAL CONSIDERATIONS

The College of Medicine, a component college of the J. Hillis Miller Health Center of the University of Florida, opened its doors to medical students in September, 1956. The various programs rapidly expanded to include a curriculum leading to the M.D. degree, a Ph.D. program in the basic medical sciences, and residency programs in the various specialties and subspecialties of medicine, and numerous special fellowship programs of clinical or scientific orientation.

The College of Medicine aspires to serve as an academic center of scientific and educational excellence and leadership in medicine and allied health fields, and highly specialized medical care services to patients referred by practicing physicians. The faculty is dedicated to programs of research, education, and patient care, while providing the student educational experiences of the highest quality. Located in northcentral Florida, the College of Medicine is engaged in intramural programs with the Gainesville Veterans Administration Hospital and extra mural programs involving neighboring communities as well as a network of educational services in Daytona Beach, Jacksonville, Tallahassee, Pensacola, and other Florida cities.

Situated at the southeast corner of the 2000-acre campus of the University of Florida, the College of Medicine enjoys the benefit of strong ties with other programs within the University. The relationships to engineering, biological sciences, social sciences, education, psychology, and other disciplines are of particular importance.

## EDUCATIONAL CONCERNS

The educational concerns of the College of Medicine begin with preprofessional counseling, and include the program leading to the M.D. degree, residency, and continuing medical education for the practicing physician. Each phase of this educational continuum has particular emphasis and significance.

Educational offerings for the student of medicine must draw on the humanities, natural and biological sciences, and on technology to provide a well-balanced educational experience. The graduates of the program must have an appreciation both for the breadth of the arts and skills of medicine and the highly specialized and fundamental nature of scientific medicine. The graduates of the M.D. degree program must have sufficient experience to be able to choose from the many career opportunities in medicine. Also, they must have acquired an attitude of continuing self-education and must have learned to adhere to the highest scientific and ethical standards of the medical progession.

The College of Medicine and its programs received full national accreditation first in 1960 and again in 1976 by the Liaison Committee on Medical Education of the

Association of American Medical Colleges and the American Medical Association. The residency programs are accredited individually by respective Specialty Boards.

## STUDENTS

The College aspires to attract into the various programs students of the highest caliber. High standards of scholastic achievement, moral character, and motivation are demanded of the student. The highly personal relationship between patient and physician places the latter in a position of trust, which demands maturity, integrity, intellectual honesty, and a sense of responsibility. Because of the vast area of science which must be mastered by the physician, the student of medicine must possess a high basic aptitude supplemented by academic preparation of the highest order. Through an active recruitment program, a broader representation of the ethnic mixture of the state is sought in the student body. The College adheres strictly to the principle of ethnic, racial, religious, sex and social equality among its student body and faculty.

The University of Florida does not discriminate on the basis of handicap in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations. The designated coordinator for University compliance with Section 504 of the Rehabilitation Act of 1973 is the Assistant Dean for Student Services.

## FACULTY

The student is accepted into a fellowship of learning that should mark the beginning of an educational and personal relationship of long duration. To meet the requirements of modern medical education, the faculty must be representative of a wide area of academic experience. In addition to the demand for highest competence in a chosen field of specialization, the faculty must be interested in education and in students. It must attempt to develop and maintain close faculty-student relationships through personal, professional, and social contacts. The nature of investigative and clinical training demands close interaction between faculty, students, and the problem at hand, be it the patient or the object of scientific study.

## RESEARCH

Individual and cooperative investigations constitute an important aspect of the activities of faculty and students. Facilities and equipment are made available through state, private, and federal funds. In addition to the research laboratories and animal facilities in the J. Hillis Miller Health Center and the Veterans

Administration Hospital, there are animal research facilities at the Health Center Animal Research Farm.

Research projects of the faculty of the College of Medicine range from problems of molecular and cellular biology to all phases of basic and applied clinical investigations including behavioral sciences, epidemiology, and many other disciplines. Collaborative projects are in process with veterinary science, engineering, biology, nuclear sciences, psychology, sociology, education, and many other disciplines.

In view of the nature of modern biomedical investigation, it is natural that many interdepartmental efforts have evolved. Most of these involve faculties from the basic and clinical sciences, and frequently from other colleges in the University. In general, these groups are organized along categorical lines such as the Center for Neurobiological Sciences, the Cardiovascular Group, the Tumor Biology Group, the Divisions of Infectious Diseases, Genetics, Endocrinology and Metabolism, and Gastroenterology, to mention a few. These groups serve a specific research need for the faculty and comprise very strong educational units in the new curriculum. The Clinical Research Center in the Shands Teaching Hospital is a focus for clinical investigation. Very active collaboration in both research and education is developing between faculties of the College of Medicine and the College of Engineering. Educational opportunities in biomedical engineering are available at all levels: pre-bachelor, graduate, and postgraduate.

## FACILITIES

Most programs and faculty are housed in the J. Hillis Miller Health Center. The Health Center's facilities include the Chandler A. Stetson Medical Sciences Hall, the Communicore Building, the Colleges of Dentistry, Health Related Professions, Medicine, Nursing, Pharmacy, Veterinary Medicine, the Shands Teaching Hospital, and the Gainesville VA Hospital.

The Shands Teaching Hospital, which has a capacity of 465 beds, has some 18,000 inpatient admissions recorded each year. The outpatient clinics and services record over 200,000 visits per year. The VA Hospital, located across the street from the Health Center, has a capacity of 480 beds and provides additional clinical and research sources. Both institutions offer ample opportunity for hospital-based bedside and ambulatory teaching. Formal educational affiliations have been established in Tallahassee, Pensacola, and Jacksonville as well, thus providing additional basic science and clinical science resources.

The Communicore is a facility unique to the College of Medicine. This building houses lecture and seminar rooms, multidisciplinary teaching laboratories designed to be flexible enough to accommodate the wide variety of laboratory teaching

programs of the different disciplines, study areas, and a center for development and utilization of audiovisual and automated learning aids. In addition, the Health Center Library has a collection of 160,000 books and periodicals. Computer-based bibliographic retrieval services, such as MEDLINE, are available to support teaching and research activities. The Library participates in a regional network of medical libraries to supplement its information resources.

# ACADEMIC CONSIDERATIONS

Medicine, as a profession deeply rooted in the culture of the society it serves, must be responsive to social needs and demands. Deficiencies in the medical system developed slowly in recent decades and assumed critical proportions in the last few years. Both the consumer and the provider of medical care now are expecting major changes in the practice of medicine and its capacity to serve all elements of our population. Medical education, although somewhat isolated from the day-to-day problem of medical care, has been drawn into the mainstream of crisis and change. In response to this challenge, the faculty of the College of Medicine has been deeply concerned with the adaptation of the educational programs to the needs of today and tomorrow.

## THE CONTINUUM OF MEDICAL EDUCATION

The curriculum of the College of Medicine has several basic objectives. First, it is designed to instill in the medical student in his first year the attitude of a physician. By presenting the student with a clinical problem and sufficient basic science data to understand the organic malfunction, it is hoped the learning process will assume a meaningful significance for him. Second, the curriculum is designed to acquaint the student with the different facets of medicine in such a fashion as to permit him to make an early choice from the many career offerings in medicine. Third, the study plan permits the student to assume the responsibility for developing an educational program relevant to his particular needs — a program which will permit him to derive maximum benefit from the learning process.

The present medical curriculum is the product of a trend over the last 50 years in which the medical school and its mother university have established close academic ties. This trend has had a great impact on the quality and character of medical education. It has facilitated the emergence of scientific medicine and increased sophistication of patient care (including preventive medicine). The price paid for these advances has been a rising cost of medical education and medical care, as well as an alienation of medical schools and their faculties from organized medicine

and the practitioner. As our society approaches an important juncture in the development of health and medical care systems, the conflict between education and practice is becoming the cause of increasing concern for involved parties. Medical school faculties now are studying carefully the long-range aspects of their educational endeavors, as well as their position as proponents or intermediaries between opposite points of view. As a result of this review process, significant proposals for far-reaching change are being made, which will have a long-lasting impact on medical education and medical schools.

## THE ART AND SCIENCE OF MEDICINE

The scientific basis of medicine universally is accepted as a prerequisite for medical practice — at least on an intellectual level. Too often, however, we are confronted with the idea that the practice of medicine is an art rather than a science; and furthermore, that too much science in medical education renders the future physician insensitive to the human needs of his patients. Frequently medical students complain that entrance into medical school really does not bring about the expected change in fulfillment of their motivational desires. Often they feel removed from the art of medicine to the point where they cannot experience satisfaction or gratification of their emotional needs. As a result, a cynical attitude may emerge toward medical and patient problems, with a subsequent loss of motivation toward learning. The education experience must help the student to achieve a high quality blend of humanism and science, which will enable him to render optimal medical care to his patients. The faculty hopes some of the new programs will provide a blending of the art and the science of medicine.

Through careful planning an effort will be made to use the fundamental knowledge of the basic sciences in a meaningful relation to career goals in medicine. While during Phase A (first year) the emphasis will be on sciences, it will focus on clinical medicine during Phase B (second year and first half of the third year). The opportunity to advance in both fields in a correlated fashion then will be offered in Phase C. It is hoped this program will contribute toward a resolution of the ambivalence between science and the practice of medicine.

The effect will be enhanced by an earlier beginning of clinical rotations by the student (third quarter of the second year), thus eliminating prolonged frustration.

These two features are of special significance for modern medicine, since there is widespread recognition that delay between scientific discovery and its clinical application is too long and must be shortened. We expect the graduates of our new program to have less difficulty in retaining a true feeling for a close relationship between science and practice.

## FLEXIBILITY OF PROGRAMS

For many years, medical faculties attempted to adhere to a principle of completeness in spite of the increased volume of knowledge in the basic medical and clinical sciences. They added new courses and condensed old ones until the deluge of factual material over-extended the student's capacity for retention, as well as his facilitiy for mental integration. In addition, the assumption was made that a single standard program of instruction would be adequate for all students accepted into the medical program. Experience at the University of Florida has since prompted consideration of the varying backgrounds of medical students and an elastic curriculum which will be relevant to the individual's needs and will permit incorporation for further developments in medical education. Consequently, the new program at the University of Florida differs from the previous curriculum in the following ways:

1) The basic or core program no longer is designated to transmit the total knowledge presumed necessary for the practice of medicine. The emphasis has changed from presentation of content to the transmission of an educational process, whereby the student largely is required to seek out for himself the necessary content. Admittedly, the student will have wide gaps in his knowledge of basic sciences and the practice of medicine, but he should have sufficient information to make a rational and well-informed decision regarding his further education.

2) Although students in a medical school all share the desire to become physicians, their backgrounds and specific goals vary greatly. By permitting greater individualization, the new curriculum will enable the student to adapt his personal program to his previous educational experience, his individual learning speed, and to his career plans for the future. In providing for this flexibility, the medical curriculum will become an educational continuum beginning with preprofessional education and culminating with continuing medical education for the practicing physician.

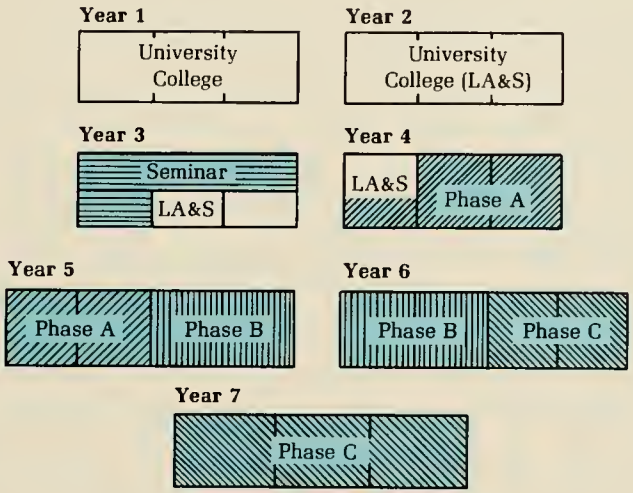
3) The new medical program will endeavor to free the student from the classroom and provide him with the opportunity to pursue his studies in the library or laboratory. While the regular course load for the first year of the medical student previously consisted of 34 to 36 hours per week, it has been reduced. The student with more time to devote to individual studies will require greater support also — through guidance, counseling, teaching aids such as computer assisted instruction, and others.

4) It is anticipated that the length of study in the medical program can be adapted naturally to the needs of the individual student. In some instances first year courses may be used to fulfill undergraduate degree requirements. In others, a student may embark on an early residency program or pursue a combined M.D.-Ph.D. degree program. The prime emphasis of the curriculum is on providing a program which

has the elasticity to encompass individual needs and interests. In addition to the change in structure of the curriculum, two new programs for entrance into medical school besides the traditional route have been developed:

## JUNIOR HONORS MEDICAL PROGRAM

The Junior Honors Medical Program allows the highly motivated and qualified student to integrate the latter portion of premedical education with preclinical basic science medical education. Application to the program takes place during a student's second year of college. Students accepted into the program are simultaneously accepted into the College of Medicine. Third year Junior Honors students take one seminar each quarter. These seminars provide the student with a solid background in biochemistry and other areas of preclinical basic science.




Emphasis in these seminars is placed on student participation in a relatively non-structured and informal format. In addition to the seminars, students continue to register for course-work within the College of Liberal Arts and Sciences. Many students in the program also become involved in research projects. The fourth year, the participants merge into the standard Phase A medical program. Since the College of Liberal Arts and Sciences grants credit for the third year seminars and most of the Phase A work, program participants are able to receive a B.S. degree at the end of the first year of medical school.

Students are eligible to apply if they have (1) completed at least one year (three quarters) of zoology; (2) completed two courses (quarters) in calculus; (3) completed freshman chemistry and organic chemistry; (4) completed University of Florida's general education requirements, English, institutions and humanities either via course or placement credit and (5) have a 3.5 or higher grade point average. Students who have also completed their foreign language and/or physics requirements during their first two years are in a favored position with respect to application to this program. Although most applicants are second year students at the University of Florida, applications are also accepted from students not enrolled at the University of Florida who meet the above requirements and who are Florida residents.

Additional information about the Junior Honors Medical Program and the application procedures may be obtained by writing Dr. James A. Deyrup, Assistant Dean for Preprofessional Education, College of Medicine, University of Florida, Gainesville, Florida 32601.

## PROGRAM IN MEDICAL SCIENCES (PIMS)

The program in Medical Sciences (PIMS), an inter-university approach to medical education, began in the fall of 1971 on the Florida State and Florida A & M University campuses in Tallahassee. In this program, the two Universities in the state capitol have combined efforts to provide instruction in the preclinical medical sciences parallel to the first year curriculum of the University of Florida College of Medicine. Since this instruction is integrated with traditional undergraduate degree programs in a college such as Liberal Arts and Sciences, the time permitted to achieve competency in the preclinical sciences is flexible. While it is expected that most students will spend five years in reaching this level, a number of accelerated students may do so in four years, others in six.

Participation and enrollment in PIMS courses is limited to full-time undergraduate students at Florida State and Florida A & M Universities. From among the participants in the program, an evaluation committee determines which students are to be awarded *secured status*. This status assures the student entrance into the second year at the University of Florida College of Medicine, assuming acceptable academic performance and professional growth during completion of the program requirements.

The curriculum is designed around a nucleus of existing courses in the social, biological and physical sciences at Florida State and Florida A & M Universities, and contains all of the traditional basic science disciplines, short of physical

diagnosis and systemic pathology. Clinical seminars and other clinical experiences are furnished by the community of practicing physicians in Tallahassee with the cooperation of Tallahassee Memorial Hospital, The Florida State University Health Service, and Sunland Training Hospital.

Detailed information on the Program in Medical Sciences can be obtained by writing the Office of the Director, Program in Medical Sciences, Florida State University, Tallahassee, 32306.

The College of Medicine also offers students and housestaff the opportunity to train in cities other than Gainesville in such programs as:

**JACKSONVILLE HEALTH EDUCATION PROGRAMS (JHEP)**

Eleven hospitals in nearby Jacksonville formed the Jacksonville Health Education Programs (JHEP) with the goal of improving medical education in the community. In 1969, by action of the Board of Regents, JHEP became a division of the J. Hillis Miller Health Center. An assistant dean and a full-time faculty for the College of Medicine are in residence in Jacksonville.

There are elective and required assignments in a variety of clinical areas available in Jacksonville. These afford the opportunity to observe patients in a community hospital setting and to become acquainted with the many problems of health care delivery in the urban area. In addition to exposure to a large full-time faculty, the student works with practitioners and can learn of the many nuances of practice removed from the academic center.

A number of residencies are conducted in Jacksonville. Residents participate in the teaching of students. JHEP conducts a number of programs for continuing education of practicing physicians to which students are welcome.

A nationally copied medical library system supports the teaching and research activities with extensive periodic holdings, bibliographic services, and audiovisual collections.

**PENSACOLA EDUCATIONAL PROGRAM (PEP)**

A unique academic affiliation between the College of Medicine and the Pensacola Educational Program (PEP) has been established. This affiliation provides the undergraduate medical student from the University of Florida an opportunity to obtain a variety of clinical elective experiences in Pensacola. In addition, numerous opportunities exist for graduate and postgraduate educational programs between the two institutions.

## COMMUNITY MEDICINE

The development of the University of Florida's Shands Teaching Hospital has played an important part in accelerating the emergence of scientific medicine by providing ideal conditions for certain aspects of clinical teaching. The student in the teaching hospital, however, is confronted with highly selected types of patient problems, which in the outside world are exceptions rather than the rule. He gains little insight into the day-to-day problems of minor and major illnesses as they occur in the community.

The College of Medicine has developed educational programs in various community settings to provide medical students and physicians-in-training with experiences in the common medical problems of ambulatory health care. The rural health activities of the College of Medicine are renowned for their contributions to patient care and medical education.

By extending the education of medical students into the community, students are also provided the opportunity to view and understand the non-clinical factors of family and community groups and institutions that affect medical care. Every medical student will participate in a community health clerkship which also includes an opportunity for a brief preceptorship with a practicing physician. Through these community experiences the faculty and students together will become familiar with the common medical ills seldom seen in a hospital.

A basic premise in the community health programs of the College of Medicine is that they will direct the talents of the faculty toward the problems of health care delivery and engage the interest and enthusiasms of the medical students toward their future resolution.

# PREPROFESSIONAL EDUCATION

The undergraduate college years are uniquely important to the education and training of a physician. The role of the physician in his community, as well as the quality of the health care he delivers, will reflect the breadth of his liberal education as much as it does the depth of his professional education. It is difficult to overstate the importance to the future physician of a strong background in the social-cultural area of study as increasing recognition is paid to the environmental and behavioral aspects of disease and the continuity of health care within the community.

This does not imply that the student's knowledge of physical and biological sciences is of less importance; on the contrary, the scientific basis of our understanding of disease processes is rapidly expanding. Rather, it emphasizes the desirability of a carefully selected program in liberal education with a strong core of understanding of the principles of physical and biological science.

The preprofessional student's educational program, as well as his selection of activities, should lead to the development of intellectual maturity and judgment, efficient study habits, and effective powers of reasoning. These goals of personal development, added to the importance of basic knowledge obtained in the social, cultural, and natural science areas of study, emphasize the significance of the liberal arts for the education of a physician.

## THE APPLICANT POOL

Generally, students applying for admission should plan to complete the requirements for a bachelor's degree. However, a limited number of well-qualified students may be accepted without fulfilling the degree requirements, provided they show evidence of sufficient preparation for the study of medicine.

Personal qualities of a high order, a genuine concern for human welfare, and superior intellectual achievement are the primary requirements for admission. Such intellectual achievement is indicated in part by performance in undergraduate courses. Applicants with an overall "B" average as a minimum will receive strongest consideration for admission to the College of Medicine.

The College of Medicine admits both men and women to its entering classes; members of minority groups are strongly encouraged to apply. A limited number of out-of-state students, in proportion to the number in the University as a whole, may be admitted.

Applications from students presently enrolled in another medical school will be considered provided (1) the student is eligible to continue in his present medical

school, and (2) the school he is now attending is accredited by the Association of American Medical Colleges.

Special programs of study leading to graduate degrees in the basic medical sciences and admission requirements for these programs are outlined on page 35 of this Catalog.

## BASIC SCIENCE REQUIREMENTS

The minimum science admission requirements include a basic introductory courses and laboratories in the following subjects:

**Biology** — 8 semester hours (12 quarter hours)
**General (Inorganic) Chemistry** — 8 semester hours (12 quarter hours)
**Organic Chemistry** — 8 semester hours (12 quarter hours)
**Physics** — 8 semester hours (12 quarter hours)

Many students desire an additional background in science. For this purpose, courses in physiology, biochemistry, embryology, physical chemistry, microbiology and genetics should be considered. It is not necessary to choose one of the sciences as a college major.

No specific requirement is set in the area of mathematics, since at most colleges some mathematics is prerequisite to physics and chemistry. In general, some college level work in calculus is strongly recommended. Familiarity with the principles of statistics and their application to the analysis of data is an important asset for any medical student. A knowledge of computers and computer programming would be valuable for the application of these tools in medical education and in all forms of the delivery of health care.

Consideration should be given by the student to participation in honors courses, independent study, and scientific research. These activities present opportunities for unstructured learning experiences and explorations of certain areas in considerable depth.

**Electives:** The remainder of the college work should be distributed throughout the humanities and social, biological, and behavioral sciences. The student should select subjects which stimulate him intellectually, challenge him to a maximum performance, and contribute to his overall development and maturation. The courses may aim toward a thorough study of a single area with a general background in many areas or may group in several related areas in the sciences or humanities.

The discriminate selection by the student of elective courses will not only increase his store of knowledge, but will help him form attitudes basic to a professional career in medicine. Development of certain skills will place the student at ease in a professional school.

**Extracurricular Activities:** Extracurricular activities and employment both during the academic year and the summers can make important contributions to an individual's development. Experience in medical and paramedical areas often contributes toward an understanding of health care delivery problems and helps to solidify the basis of the student's motivation toward a career in medicine.

Discipline in study is essential. Efficient skill in accurate, rapid, interpretive reading should be mastered. Methods of observation and collection of data, evaluation, deduction, and interpretation of findings are taught in psychology, physics, and other sciences. The analysis and organization of a set of observations into its simple components and the synthesis of many fragments of data into a working hypothesis on which a plan of action can be based are taught in many courses. The student should keep these objectives in mind throughout his preprofessional training.

A high degree of skill in the use of spoken and written language should be developed accurately to extract a story, systematically to record facts for the use of others, and precisely to transmit instructions. These techniques are taught in courses in English literature and composition. The study of foreign languages also illustrates the exact meaning of words and the use of subtle differences in shading.

Communication through symbols is taught in chemistry, physics, and mathematics. Proficiency in typing increases the speed and accuracy of communication and will aid the student in his professional work.

Medicine deals with individuals who react to their physical, social, and cultural environment. Functional derangement induced by the interplay of emotional factors in the individual or by external influences from the environment can be detected by subtle methods. The study of emotional factors is taught in philosophy, religion, psychology, and the fine arts, while the study of social forces is considered in history, literature, economics, sociology, and law. Since all of these factors may induce reactions during physical illness which exceed that produced by the disease itself, the study of principles in these areas is most important to the education of a physician.

## MEDICAL COLLEGE ADMISSION TEST (NEW)

Every applicant must take the New Medical College Admission test, preferably in the Spring preceding the submission of his or her application. As of 1977 this examination replaced the old Medical College Admission Test and all candidates applying or reapplying for the class beginning in September 1978 are required to have taken the New MCAT. The test is given twice yearly in many colleges and universities. For further information about the test, write to The American College Testing Program, P. O. Box 414, Iowa City, Iowa 52240.

## APPLICATION AND ACCEPTANCE PROCEDURES

Admission to the College of Medicine is highly competitive and the applicant is appraised on the basis of information gained from previous academic records, scores on the Medical College Admission Test, recommendations by premedical advisors and teachers, and personal interviews. The College of Medicine endeavors to select those students who appear by present standards the most qualified for a career in medicine. Similarly, the student is expected to make a careful choice of that institution which offers an environment and program most suited to his interests and personality. A personal visit to the school of his choice should be most helpful.

1) The College of Medicine is a participating institution in the American Medical College Application Service (AMCAS). The AMCAS application form may be obtained after June 1 from any of the participating institutions or from the office of the Registrar, University of Florida, Gainesville, Florida 32611.

2) After careful screening of the initial applications by the Medical Selection Committee, promising applicants will be sent an additional formal application requesting information not included on the AMCAS aplication. The completed form should be returned directly to the University of Florida and arrangements made for submission of a preprofessional committee evaluation or letters of recommendation. This second phase requires an application fee of $15 from all students not previously enrolled in the University of Florida. This fee is not refundable. All materials should be submitted as early as possible, but no later than December 1 of each year.

3) Following committee review of all the application materials, interviews with members of the Medical Selection Committee will be arranged for competitive applicants. These interviews are usually held on Fridays and Saturdays at the University of Florida College of Medicine campus in Grainesville.

4) After receipt of an acceptance, a written reply to the College of Medicine is expected within two weeks. There is a wide variety in acceptance dates of different medical schools and therefore some students may wish to reconsider after filing a declaration of intent. This a perfectly acceptable procedure, provided the student promptly sends written notification to every school holding a place for him or her.

5) No deposit is required from accepted applicants, but if they accept the offer of a place, they have an obligation to matriculate unless they are released by the school. Such release is granted automatically upon request by the student.

The above procedures are approved by the Association of American Medical Colleges.

# PROFESSIONAL EDUCATION LEADING TO THE M.D. DEGREE

Once a decision has been reached by both the medical school and the applicant, the student enters the professional portion of the educational continuum. From this point on, the student will pursue his educational endeavors from the vantage point of a physician striving to achieve well-rounded capacities as a physician-humanist and scientist in his profession and community.

## PHASE A

Phase A will occupy the entire first year, followed by vacation in the summer quarter. The fall quarter will be devoted to a study of biochemistry and molecular genetics, gross anatomy, embryology, and an introduction to clinical medicine. Teaching in all quarters will be of an interdisciplinary, interdepartmental nature, with teaching teams drawn from both the basic and clinical departments. The course schedule may be broken down in the following manner:

*Biochemistry and Molecular Genetics* will consist of lectures and discussion sessions designed to increase the student's basic biochemical knowledge of cellular functions in health and disease including genetic disorders. The nutrition, physical chemistry, metabolism, and molecular biology of mammalian cells are stressed including such subjects as homeostasis, inborn errors of metabolism, cell genetics, and medical aspects of human genetics.

*Gross Anatomy* represents an introduction to the basic structure and mechanics of the human body. The dynamics of learning occur primarily in the laboratory and are supplemented with lectures, conferences, and demonstrations as needed.

*Embryology* covers early human development including gametogenesis. The major emphasis of the course will be on normal human organ development and morphogenesis. A system approach, correlated with the normal gross anatomy of those systems, will be used.

*Introduction to Clinical Medicine* will be an integrated course given throughout the three quarters of Phase A. Applications of basic science principles to clinical problems will be presented and discussed.

*Microscopic Anatomy* is a course in which the microscopic structure of the cells, tissues, and organs of the human body is taught. Correlation of structure and function is emphasized.

*Human Systems I* will introduce general physiology and microscopic anatomy and will proceed with in-depth interdisciplinary studies of the hematopoietic system, and

the respiratory, cardiovascular, endocrine, gastrointestinal, renal, and reproductive systems.

*Human Systems II* will consider the nervous system and then consider microbe-host interactions and the pathological consequences of infection. Again the approach will be an interdisciplinary one.

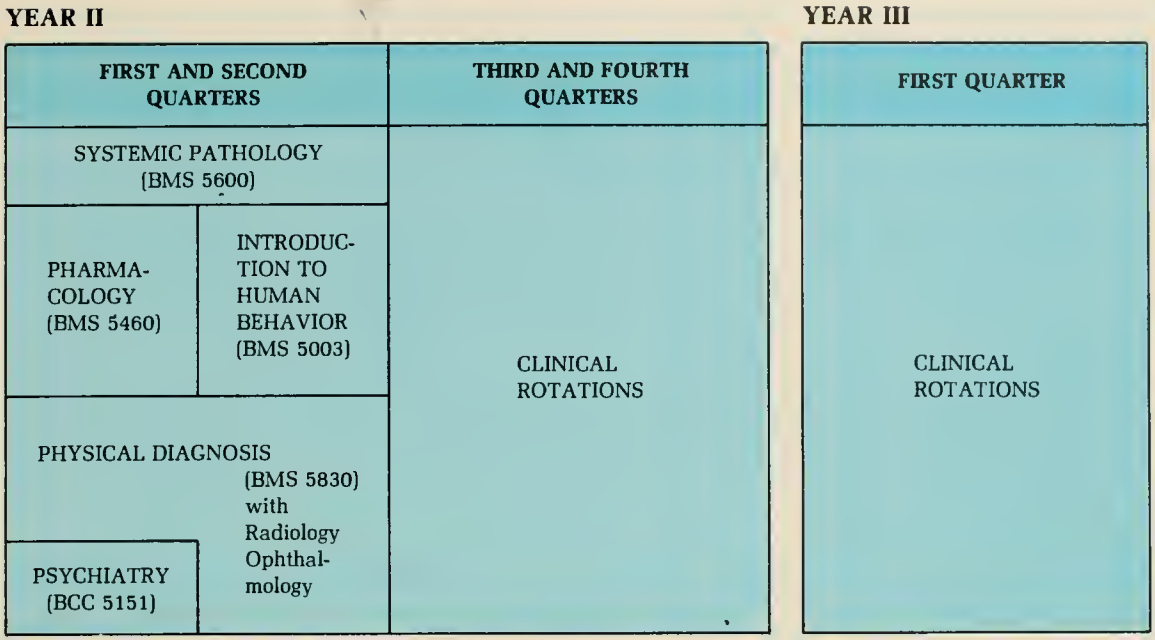
*Introduction to Human Behavior* will deal with the human life cycle and the different psychosocial factors affecting the physician and the patient. Individual students or groups of students will interview patients under the supervision of the psychiatry and general medical-surgical faculty.

**YEAR I**

<table>
<tr><th>FALL QUARTER</th><th>WINTER QUARTER</th><th>SPRING QUARTER</th></tr>
<tr><td>BIOCHEMISTRY AND MOLECULAR GENETICS (BMS 5201C)</td><td rowspan="2">HUMAN SYS. I (BMS 5000)<br>Physiology<br>of<br>Cardiovascular<br>Endocrine and Reproductive<br>Gastrointestinal<br>Respiratory<br>Renal</td><td rowspan="2">HUMAN SYS. II (BMS 5001)<br>Neuroscience<br>Immunology<br>Microbiology<br>General Pathology</td></tr>
<tr><td>GROSS ANATOMY (BMS 5100C)</td></tr>
<tr><td>EMBRYOLOGY (BMS 5121)</td><td>MICROSCOPIC ANATOMY (BMS 5100)</td><td>INTRODUCTION TO HUMAN BEHAVIOR (BMS 5002)</td></tr>
<tr><td colspan="3">INTRODUCTION TO CLINICAL MEDICINE (BMS 5004)</td></tr>
</table>

## PHASE B

Phase B is designed to give a broad experience in clinical medicine. Diagramatically, it may be represented as follows:




Initial course work will consist of *Systemic Pathology, Physical Diagnosis, Pharmacology,* and *Community Medicine.* Systemic Pathology will emphasize the effects of disease on the human organism and the correlation of disease with symptoms, signs and the course of illness. Physical Diagnosis will be taught emphasizing anatomic and radiologic characteristics of children and adults. Experience in patient interview (psychiatry) will be provided. Laboratory diagnosis and introduction to Radiology will be taught concomitantly to familiarize the student with diagnostic procedures. Community Medicine explores the patient's interactions associated with disease, treatment, family and community.

The major portion of Phase B will be devoted to the clinical clerkships, in which groups of students will rotate among the major clinical services receiving direct patient contact. During the clerkships, the student will become an integral member of the medical team and will be responsible for his patient during all hours of the day or night.

Each clinical service conducts a variety of seminars and conferences. These are considered to be part of the clerkship and should be attended.

At the conclusion of Phase B, a review of particular basic sciences will be held for 11 weeks including Clinical Pharmacology, Microbiology, and Pathophysiology.

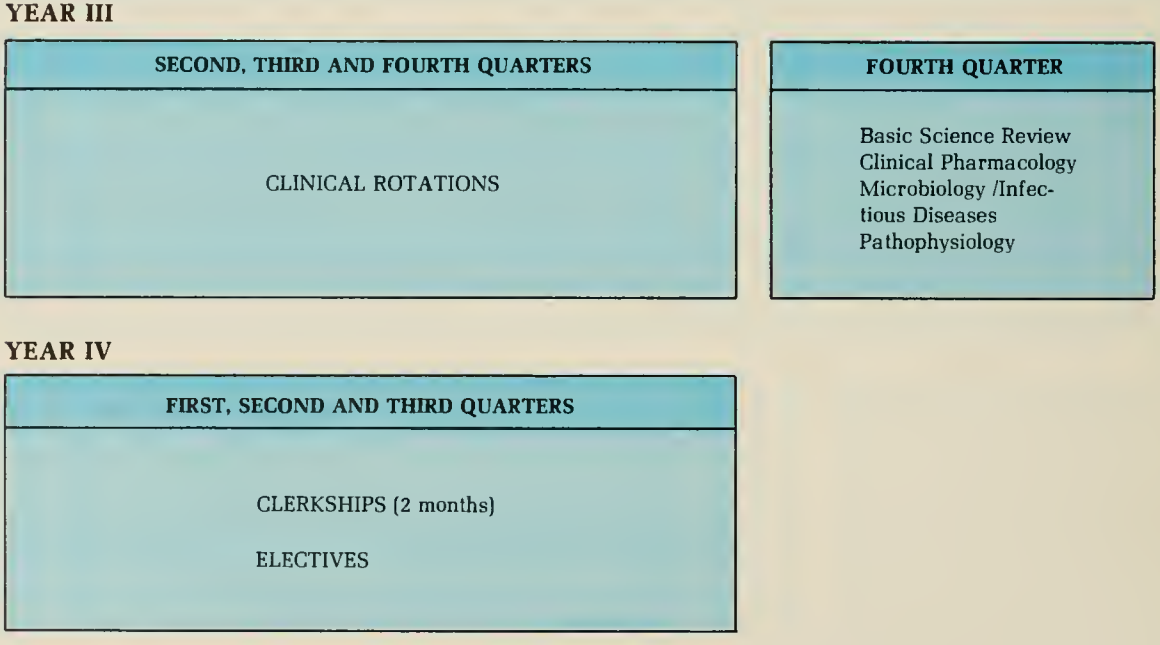
## PHASE C

Phase C occupies the last 11 months of the curriculum and consists of elective experiences combined with two months clerkship.

The student thus will be able to design a program which will permit extensive elective time in a clinical or basic science area, an early experience related to his career choice, or an exploration of his interests among several career choices. Considerable freedom will be permitted the student in designing his program, but the choices must be made carefully in conjunction with the student's faculty and advisors. Remediation may take place in Phase C upon recommendation by the Academic Status Committee, appropriate department, and faculty advisor.

Any student academically below the middle of the class requesting to study away will be asked to obtain his advisor's permission. Any student whose request exceeds a three month period of study at other institutions, is to be reviewed by the Academic Status Committee and/or the student's advisor. Each student is required to submit a written report of activities during this period.

The science requirement can be met by several different methods: (1) by registration in formal courses in the basic science departments, (2) by engaging in a



research laboratory project with a member of the faculty, and (3) by engaging in a group project supervised by the faculty. The student also may elect to satisfy the science requirement in one of the other colleges, provided he receives prior approval from his advisors and the dean.

Clinical assignments are available in all of the major disciplines of medicine. The student may work as an advanced clerk, assuming greater responsibilities than in Phase B, or in special cases he may qualify for internship at an earlier time.

The curriculum is constantly undergoing evaluation and refinement. Changes may occur from year to year in order to improve the educational program of the undergraduate student of medicine.

The provisions of this Catalog are not to be construed as an irrevocable contract between the student and the College of Medicine. The College reserves the right to effect policy and regulatory changes at any time.

## EVALUATION

Students entering the program of the College of Medicine are highly motivated and are considered graduate students in a program of professional education. They are preparing themselves for a career requiring excellence of scholastic endeavor, moral integrity, sound judgment, intellectual curiosity and above all, a drive to continue their education vigorously after graduation. It is hoped that the system of evaluation will assist them in attaining their objectives.

Since the evaluation of the student must provide information on both the student and the educational program, new policies for evaluation were instituted at the same time the new curriculum was implemented.

There are three major components of the evaluation system, namely project tests given by the various teaching units throughout the program, National Board Examinations Parts I and II to be administered during the first six months of Phase C, and progress reports prepared by the members of the faculty.

Grades submitted by the faculty of the various curricular units, and the scores of the National Board Examinations will be the information used by the Academic Status Committee in preparing recommendations regarding promotion, graduation, and general ranking of students. National board Examinations Parts I and II must be passed before the student is graduated.

Students may, at their request, receive grades as submitted to the Office of Student Affairs. Grades submitted to the registrar will consist of "P" (pass) or "U" (unsatisfactory).

At the end of each quarter, the Academic Status Committee will review each student's performance on the basis of his/her academic and non-academic performance and recommend to the dean a suitable course of action. 1) A grade of "D" is passing but connotes borderline academic performance. 2) PROBATION: Probationary status occurs when a student's performance is marginally passing as determined by the Academic Status Committee. A student may be removed from probation after he or she demonstrates improvement in subsequent course work. Failure to improve performance may result in dismissal. 3) Any student receiving failing grades (F) in a course with 10 or more credit hours, or D grades in 50% or more of the credit hours in a Phase, will be automatically dismissed. A student has the right to appeal academic dismissal to the Academic Status Committee within 14 days after receiving written notification of dismissal. 4) A student may be dismissed for failure to maintain the requisite integrity, attitude, motivation, and personal and professional conduct deemed essential to the practice of medicine as determined by the Academic Status Committee. 5) A student has the right to appeal non-academic dismissal to the Executive Committee or subcommittee thereof appointed by the Dean within 14 days after receiving written notification of dismissal.

The Academic Status Committee will recommend to the Dean those students who have satisfactorily met its requirements and are eligible for graduation. Superior students may be recommended for graduation with honors. Nomination and selection of students will be made by the faculty. Excellence of different types in varied fields will be considered, such as superior academic work, outstanding student research and thesis, and other special achievements.

## STUDENT CONDUCT CODE

Students enjoy the rights and privileges that accrue to membership in a university community and are subject to the responsibilities which accompany that membership. In order to have a system of effective campus governance, it is incumbent upon all members of the campus community to notify appropriate officials of any violations of regulations and to assist in their enforcement. All conduct regulations of the University are printed and made available to all students and are applicable upon publication in the *Independent Florida Alligator*, the *University Catalog*, the *Student Handbook*, or other reasonable means of notification.

Violation of the Code of Conduct. A student may be expelled or receive any lesser penalty for the following offenses:

1) Furnishing false information to the University with intent to deceive. *This includes cheating and plagiarism.*

2) Forgery, alteration, or misuse of University documents, records, or identification cards.

3) Unauthorized use, taking or destruction of public or private property on campus, or acts committed with disregard of possible harm to such property.

4) Actions or statements which by design or consequence amount to intimidation or hazing.

5) Participation in or continued attendance at, after warning to disperse by a University official, a raid on a University living unit.

6) Disorderly conduct.

7) Disrupting the orderly operation of the University as defined in Florida Statutes, Board of Regents' Policies, and the Demonstration Policy of the University.

8) Failure to comply with a University rule or regulation.

9) Violations of Housing, Interhall, and Area Council regulations.

10) Violation of conduct probation.

11) Possession, use, or delivery of illegal drugs as defined in Florida Statutes; and use of exploding fireworks as defined in Florida Statutes.

12) Possession of a firearm on the University campus except as specifically authorized by University Policy on the Possession and Use of Firearms.

13) Actions or conduct which hinders, obstructs, or otherwise interferes with the implementation or enforcement of the Student Conduct Code.

14) Failure to appear before the Committee on Student Conduct or the Director of Student Judicial Affairs and to testify as a witness when reasonably notified to do so. Nothing in this subsection shall be construed to compel self-incrimination.

15) Violation of any municipal ordinance, law of the State of Florida, or law of the United States.

# GRADUATE AND POSTGRADUATE PROGRAMS

## GRADUATE EDUCATION IN THE MEDICAL SCIENCES

### Programs Leading to the Ph.D. and M.S. Degrees

The educational continuum of the medical sciences is designed to provide flexibility in terms of the type of degree which may be earned as well as the type of subject matter which may be included in the individual curriculum.

Programs leading to the Ph.D. degree in medical sciences are offered by the College of Medicine through the Graduate School of the University. The programs offered in anatomy, biochemistry and molecular biology, immunology and medical microbiology, neuroscience, pathology, pharmacology and therapeutics, and

physiology are intended to give talented individuals an opportunity to engage in careers of research and teaching in the basic scientific medical disciplines. The Department of Biochemistry and Molecular Biology also offers a program leading to the Ph.D. in biochemistry.

The M.S. degree in the medical sciences is offered by the Departments of Anatomy, Biochemistry and Molecular Biology, Immunology and Medical Microbiology, Neuroscience, Pathology, Pharmacology and Therapeutics and Physiology. The Department of Biochemistry and Molecular Biology offers the M.S. degree in biochemistry.

The prime requirements for admission to these programs are personal integrity, motivation, and general scholastic achievement. Candidates must satisfy the general requirements for admission to the Graduate School and produce a satisfactory score on the Graduate Record Examination. Candidates should have an undergraduate major in a biological or physical science, but other undergraduate areas of concentration appropriate for study in the basic medical sciences are engineering and mathematics. In order to remedy deficiencies in their backgrounds, some candidates may find it necessary to take additional undergraduate courses even though they hold the A.B. or B.S. degree required for Graduate School admission.

The completion of a satisfactory dissertation based on original research is the most important single requirement of the Ph.D. program. Most of the work involved in the dissertation ordinarily will be done in the last two years of residence, but candidates will be encouraged to begin their research in a preliminary exploratory fashion toward the end of their first year. Graduate education in the basic medical sciences is planned from an interdisciplinary point of view, but with a major in the fields of anatomy, biochemistry and molecular biology, immunology and medical microbiology, neuroscience, pathology, pharmacology and therapeutics or physiology. A minor is not required but may be elected in any relevant discipline approved for graduate study in the University.

Graduate students have the opportunity of assisting in the teaching of medical and undergraduate courses and most students are advised to do this as part of their training. Teaching assistantships and nonresident tuition scholarships are available to a limited number of students.

Individuals interested in graduate study should write directly to the Assistant Dean for Graduate Programs in Medical Sciences or to the appropriate department chairman, who will give further details regarding the programs, fellowships assistantships, and scholarships.

**Medical Scientist Training Program (Combined M.D.-Ph.D. Degree)**

The Medical Scientist Training Program is designed for highly qualified students

who are strongly motivated toward a career in the medical sciences. This is a five to seven year program, which attempts to provide, for a limited number of students, an in-depth education in a basic science discipline as well as an in-breadth experience in human biology. Successful completion of this program will enable the student to enter a career of teaching and research in a basic medical science department or pursue a residency program leading to a research and teaching career in clinical medicine. It is hoped students in this program may bridge the gap between basic science and clinically-oriented careers in the medical sciences.

Candidates for this program must satisfy admission requirements of both the College of Medicine and the Graduate School. These include satisfactory scores on both the Graduate Record Examination and the Medical College Admission Test, personal qualities of high order, and superior intellectual achievement. A strong undergraduate background in the physical and chemical sciences as well as mathematics is desirable. A genuine interest in human welfare is essential.

The student will enroll in all courses for the M.D. degree. In addition, special graduate courses and seminars will be required, as determined by the student's Graduate Advisory Committee. The Graduate Advisory Committee also will assist the student in planning his curriculum, determining his progress, and guiding his research.

In most cases the student will complete the first year of medical school while initiating a research experience. During the summer quarter before beginning a 16-18 month clinical clerkship program, the student will take graduate courses and commence a research project. Graduate studies may be integrated into an extended Phase B (Basic Clinical Clerkships) and a lengthened Phase C (Elective Studies). However, the program is designed to be flexible and in all cases the curriculum will be determined by the needs and progress of the student.

Students will be evaluated by examinations similar to those in the separate M.D. and Ph.D. programs. The Committee on Academic Status of the College of Medicine will evaluate the student's performance and recommend promotion to the next class or awarding of the M.D. degree. The Graduate Advisory Committee, in conjunction with the basic science department from which the student will receive the Ph.D. degree, will assess his graduate performance.

Applications for this program are coordinated through the office of the Assistant Dean for Graduate Education in the College of Medicine. Candidates should specify the basic science department to which admission is sought.

## GRADUATE MEDICAL EDUCATION (RESIDENCIES AND FELLOWSHIPS)

All programs of residency training offered in the Shands Teaching Hospital and the VA Hospital are fully accredited and approved by the American Medical

Association's Council on Medical Education and Hospitals, and are listed in the Directory of Approved Residencies. In addition, the Senate of the University formally recognized these programs as academic non-degree programs of the College of Medicine at its meeting of June 26, 1969. The hospitals hold maximum certification from the Joint Commission on Accreditation of Hospitals. Each of the various residency and fellowship specialty training programs has been accredited by the respective Specialty Board under the Joint Commission.

**Residencies:** Residencies vary in length with each of the services (between two and five years). Formal residencies are offered in anesthesiology, family practice, medicine (internal medicine), neurology, obstetrics and gynecology, ophthalmology, orthopaedic surgery, pathology, pediatrics, psychiatry, radiology and its subspecialties, and surgery (general, plastic, thoracic, neurosurgery, otolaryngology, and urology).

Stipends accompany each residency. Housing at moderate cost is adjacent to the Health Center and is described on page 49.

**Fellowships:** A limited number of clinical fellowships are available in the various subspecialties of anesthesiology, family practice, medicine, pathology, pediatrics, psychiatry, radiology, and surgery to qualified applicants with some previous residency training and/or research pursuit. There are some traineeships which are at a slightly more advanced level pointing toward basic training for academic careers in clinical disciplines and the basic medical sciences. A postgraduate training program in laboratory animal medicine is also available.

Opportunities also exist for selected fellows to work toward the M.S. degree in the medical sciences in one of the basic science departments offering such programs.

**Applications:** Detailed program information and applications for these programs may be obtained by writing the appropriate departmental chairman, chief of service, or the Office of the Dean, College of Medicine.

## LICENSURE

Licensure to practice medicine and surgery in Florida can be obtained by endorsement if the applicant has been certified by licensure examination of the Federation of State Medical Boards of the United States, Inc. (FLEX) or is certified by the National Board of Medical Examiners as having completed its examination; provided that said examination required shall have been so certified within the eight years immediately preceding the filing of the application for licensure. Such a license is good only if the recipient engages actively in medical practice in the state within three years after the date of issuance and continues his practice for a minimum of one year. Graduates of approved medical schools in the United States and Canada are eligible for this endorsement. In addition, graduates of foreign

medical schools who otherwise are qualified and whose credentials have been evaluated by the Educational Council for Foreign Medical Graduates (ECFMG), and who have passed the American medical qualification examination for foreign medical graduates may be considered for endorsement. The applicant must have completed at least one year of approved internship or five years in private practice in the United States, its territories or Canada. He also must be a citizen of the United States or legally have declared intention to become a citizen and have been a resident of the United States for a minimum of one year.

Since various state laws differ in regard to licensure requirements, it is the responsibility of the medical student to become familiar with the qualifications for licensure in the state or states which he or she might consider as potential locations for the practice of medicine.

## CONTINUING EDUCATION

The physician's proficiency in the practice of medicine depends on his continuing education. The College of Medicine recognizes its role in assisting with this aspect of education and has designated to a member of the academic staff the responsibility for inaugurating an effective means of strengthening the educational continuum through postgraduate medical education. To facilitate such a program, a Division of Postgraduate Education has been created.

The Division of Postgraduate Education has surveyed the needs of the practicing physician and formed a Continuing Education Council to establish priorities in continuing education for the practicing physician. These priorities have been defined and a series of two-day workshops have been designed to meet the specific needs of the practicing physician at the community hospital level. A physician from the University, along with a practicing physician, coordinate these programs to bring both academic and practical benefits to the practicing physician. In addition, national seminars based on current relevant topics are conducted with national speakers, University personnel, and practicing physicians. The interest of the practicing physician in this program has been most encouraging, and is a tribute to the desire of the medical profession to keep abreast of the current trends in medicine.

Physicians are encouraged to participate in the Postgraduate In-Service Education Program which is designed to meet the needs of the practicing physician as he perceives them. The practicing physician, in conjunction with the University preceptor, designs a program to meet his individual needs. Pre-programmed material is available to assist in his selection of an area for concentration. In this role, he acts as both teacher and student in the school's medical education program. The practicing physician usually spends one to two weeks in this program for which a small tuition is charged.

Postgraduate Education personnel are available for consultation in the program design of educational techniques, chart audit, and peer review as they relate to educational objectives of an individual hospital. Other programs in continuing medical education are conducted in cooperation with the Florida Board of Regents, the Florida Medical Association, the Florida Academy of Family Physicians, and a variety of medical specialty groups.

# STUDENT INFORMATION

## FINANCIAL CONSIDERATIONS

For enrollment in the M.D. program of the College of Medicine, registration and course fees are $450 per registered quarter for Florida residents and $1,018 for nonresidents. Students are registered for three quarters during their first and fourth years and for four quarters the second and third years. Fees and method of payment are subject to change and are payable in accordance with University regulations. The Registration Fee includes a Student Health Fee and a Student Activity Fee for each of the quarters. Most of the service and facilities of the Student Health Services are available to students without charge. A group insurance program sponsored by the Student Government is available at a very reasonable cost. The Activity Fee covers the student's attendance at a wide variety of social, athletic, and cultural events which are offered by the University.

Registration dates for each class in the College of Medicine are set by the Registrar's Office and the students are notified when their group is expected to complete registration. These fees must be paid in accordance with dates published in these instructions or they are increased by $25.

Students who are interested in doing work toward an advanced degree in the medical sciences should consult the Bulletin of the Graduate School for information concerning tuition and fees.

Textbooks and instruments needed by a first-year student will require an expenditure of about $400-$600. Purchase of a microscope will not be required as the College of Medicine, through a special fund, has established a microscope bank and provides each entering student with a microscope on a loan basis. If desired, a student may purchase a used microscope from an upperclassman or a new one through the Medical Book Store, a branch of the University Book Store.

The minimal annual cost for a single Florida resident is $5,300.

## SCHOLARSHIPS

**The Charles O. Andrews, Jr. Scholarship Fund:** A merit scholarship fund established in 1978 in memory of Judge Andrews and awarded annually to an M.D.-Ph.D. student.

**Avalon Foundation Scholarship Fund:** This fund, made possible by grants from the Avalon Foundation, is available for a few non-refundable grants to outstanding medical students, and to outstanding candidates for medical school who have been accepted for admission. These grants are usually made in the form of tuition scholarships.

**Bythewood & Baker Memorial Scholarship for Women Medical Students:** This endowed fund, established in 1968 by Miss Martha Isabel Mays, is to be used to provide financial assistance to selected women medical students.

**Alumni Scholarship Fund:** This unrestricted scholarship fund was established by the Florida Medical Alumni Association from donations by its members and is awarded to students in the College of Medicine at the discretion of the Student Affairs Office.

**The Maurice H. Givens Scholarship Fund:** An endowed fund established in 1975 to provide financial assistance to students in the College of Medicine.

**Molly and Mitchell Glick Scholarship Fund:** Established in 1968 to assist worthy medical students in need of financial aid.

**The Mr. and Mrs. W. A. Gordon Scholarship Fund:** This unrestricted endowed fund was established in 1977 to assist medical students who demonstrate a need for financial assistance.

**Health Professions Scholarship Programs:** Scholarships to enable talented students from low-income families to undertake the study of medicine are provided under the Health Professions Educational Assistance Act of 1976 (Public Law 94-484). These scholarships are available only to students of exceptional need, who without this financial assistance, would not be able to pursue the required studies.

Other students may participate in scholarship programs under the National Health Service Corps and the Armed Forces where participants are required to perform obligated service on a year-for-year basis with a minimum of two years.

**Graham Hunter Scottish-American Exchange Scholarship,** is awarded annually to a fourth year student for the purpose of studying at the University of Dundee, Scotland, and for a Scottish medical student to study at the University of Florida College of Medicine. This exchange program was made possible through funds provided by the late Mr. George Graham Guthrie Hunter.

**The George Graham Hunter Scholarship Fund**, is awarded each year to an undergraduate medical student in the field of orthopaedics. The recipient of this scholarship shall be designated by the orthopaedic faculty and approved by the Dean of the College of Medicine.

**Avonelle C. Noah Scholarship Fund:** An endowment fund was established in 1968 under the terms of the will of Mrs. Avonelle C. Noah. The income from this fund is to be used to assist worthy students in the College of Medicine.

**John R. Pletincks Scholarship:** Established in 1976 to aid medical students from Southeast Volusia County that have demonstrated need.

**Wheat Medical Scholarship Fund:** An endowment fund was established in 1967 under the terms of the will of Mrs. Eva H. Wheat. The income from this fund is to be used to assist worthy male medical students (who are selected by the College of Medicine) to continue their education.

**Joseph and Lee Wolfe Medical Scholarship:** Established in 1968, this annual scholarship award is to be given at the discretion of the faculty to assist worthy students in the College of Medicine.

## SCHOLASTIC AWARDS

**Alpha Omega Alpha Honor Medical Society:** The Beta Chapter of Florida was installed at the University of Florida College of Medicine on May 9, 1960. A small number of students of the junior and senior classes are eligible for membership. Selection is based upon high academic standing, personal and professional character, and promise for future contributions to medicine.

**The John Gorrie Award,** donated by Dr. Theodore F. Hahn, Jr., is presented each year to the graduating medical student who, in the opinion of the faculty of the College of Medicine, is the best all-around student showing promise of becoming a practitioner of the highest type.

**Upjohn Achievement Award** is offered through the Upjohn Company Achievement Award program to the graduating medical student who achieves the highest academic standing during the four years in medical school.

**The William C. Thomas, Sr. Award** is given each year to an outstanding student with an interest in obstetrics and gynecology. The award is made by the Florida Obstetric and Gynecologic Society.

**The Faculty Award for Research** is given to the graduating medical student who has made the most outstanding contribution through research during the course of medical school.

**The Luther W. Holloway Award** was established by the Florida Pediatric Society in honor of the late Dr. Luther W. Holloway to be awarded to the medical student showing the greatest proficiency in child health.

**The Hugh and Cornelia Carithers Award,** an endowed award established by Drs. Hugh and Cornelia Carithers of Jacksonville, is presented each year to a graduating student on the basis of over-all accomplishments and aptitudes in child health and human development.

**The University Medical Guild Scholarship Awards** are presented each year by the University Medical Guild to a medical student who, at the end of his third year, is judged to be outstanding scholastically and to an entering student on the basis of need and scholastic merit.

**The University Medical Guild Graduate Research Awards** are presented each year to three graduate students in the basic medical sciences who are judged to have performed the best research during their graduate studies.

**Genevra Todd and Henry E. Meleney Memorial Award,** established originally by the late Dr. Henry E. Meleney in memory of his wife, is to be given to a medical student for outstanding achievement during the first year of medical study.

**The Watson Clinic Award** is to be presented each year by the Watson Clinic of Lakeland to the medical student chosen for productive effort and scientific contribution. The research must have been presented at a Medical Student Research Conference during the academic year.

**The Dean Mitchell Baker Award,** established by Dr. and Mrs. Roy M. Baker of Jacksonville in memory of their son, is awarded each year to the graduating medical student for excellence in the field of pediatric cardiology.

**Joel Cohen, Patricia Ann Maddalone Memorial Award** was established in memory of Joel Cohen who demonstrated superior skill, imagination, and industry in the laboratory research of drug hypersensitivity, and is to be presented each year to that student demonstrating outstanding proficiency in clinical or laboratory investigation in the field of immunology.

**Most Noble Order of the Flea Award** is donated by this organization, composed of past and present chairmen of the Department of Medicine, chiefs of the Medical Service at the Veterans Administration Hospital and chief residents in medicine, to the graduating medical student who has demonstrated outstanding proficiency and excellence in the field of internal medicine.

**Guillermo J. Perez Memorial Scholarship Award** was established by the Department of Pediatrics in memory of the late Dr. Perez, a former member of the pediatric faculty, to support each year the training of a graduating medical student who demonstrated an interest in adolescent medicine.

**Walt Oppelt Memorial Award** has been established in memory of the late Dr. W. Walter Oppelt by friends, associates, and the Departments of Pharmacology and Therapeutics and Medicine. This annual award will be presented to a graduating medical student who has excelled in the field of pharmacology and therapeutics throughout the four years.

**Paula Ellis Scholarship Award** was established by the Gainesville Junior Women's Club as a memorial to Paula Ellis and is given to a medical student chosen for academic excellence and/or meritorious service who shows promise and interest in the prevention or cure of cancer.

**F. Eugene Tubbs, M.D., J.D., Memorial Award** was established in 1979 in memory of the late Dr. Tubbs, a former resident in the College of Medicine and member of the Florida House of Representatives. The Award is to be awarded jointly each year to a University of Florida medical student and a Florida State University law student who have demonstrated excellence in their field.

**Book Awards** consisting of presentations each year to outstanding members of the four classes in the College of Medicine are made by Lange Medical Publications, Merck & Company, and C. V. Mosby Company.

**Roger G. Schnell Neurology Book Award,** established by Dr. Roger G. Schnell of Ft. Lauderdale, is to be given to a medical student who has shown excellence in the field of clinical neurology.

## LOAN FUNDS

**College of Medicine Loan Funds:** Loans from these funds are available to students enrolled in the College of Medicine who are in good academic standing, have completed one quarter of academic work, and can show sufficient evidence of financial need. Long-term loans are limited to $1,000 per year. Interest (at four per cent) begins at graduation and continues until repayment is completed. Repayment ordinarily begins two years after graduation, but deferment can be arranged if further medical training is planned. Short-term loans are available for emergencies, but must be repaid within the school year. Equipment loans can be made to spread over a period of four years.

These funds have been made possible by grants from the Avalon Foundation; the W. K. Kellogg Foundation; the Selby Foundation; the Patrick J. O'Shaughnessy Memorial Fund; the John J. Tigert Memorial Fund; the Frederick F. Kumm, M.D., Memorial Loan Fund; the Helen Stargardt Memorial Loan Fund; the George M. Green, M.D., Memorial Loan Fund; the Algia Collins, Jr., M.D., Memorial Fund; the Publix Scholarship Loan Fund; the University of Florida College of Medicine Alumni Association; Alachua County Medical Auxiliary; and by gifts from several organizations and individuals within the State of Florida. Loans are administered by the College of Medicine's faculty-comprised Loan Committee.

**AMA-ERF Medical Education Loan Guarantee Program:** The goal of the American Medical Association Education and Research Foundation is to help eliminate the financial barrier to medicine for all who are qualified and accepted by an approved training institution. It is designed to provide a means of financing a substantial portion of the cost of a medical education for students who have performed acceptably in the first year of medical study. The Loan Program for medical students, and residents is the result of a cooperative effort by American medicine and private enterprise. As much as $1,500 may be borrowed annually. These loans are repayable, with interest, after medical training is completed.

**Health Professions Educational Assistance Act:** The Health Professions Educational Assistance Act of 1976 extends the act of 1963 through 1980 and provides student loans up to the cost of tuition and $2,500 in one academic year. The loans are based on exceptional financial need and may be repaid in part by service in a shortage area. Interest rates are seven percent per annum. A new program of Federally insured loans will enable students to borrow up to $10,000 a year, or a total of $50,000, with interest payable yearly for the life of the loan at a rate not to exceed 10 percent. The loan principal would be repayable over a 10-15 year period starting 9-12 months following completion of training or service in approved programs.

**The Barbara S. Michael Loan Fund:** A revolving loan fund established in 1977 for needy and worthy students in the College of Medicine.

**Bernard J. Wagner Loan Fund:** Established in 1968, this trust fund is for the purpose of assisting students of accredited medical schools to continue with their education. Preference shall be given to those who have completed the most years in medical school. Loans are repayable with interest at a rate never to exceed that prevailing rate at the time the loan is made on student loans enacted by Congress.

**The Robert Wood Johnson Foundation Loan Fund:** A new student loan guarantee program is a cooperative effort by The Robert Wood Johnson Foundation, United Student Aid Funds, Inc., professional schools and participating lending institutions and was designed to make available private-source loans to students in real financial need. The loan program provides forgiveness if student withdraws permanently from studies, a three year grace period after medical school while student is in housestaff training when only interest payments are made, and a period up to 10 years for payment of principal and interest.

**United Student Aid Funds:** Participation in this loan fund is made possible through the use of the Ronald A. Julian Memorial Fund. USA Funds is a private, nonprofit corporation which endorses low-cost loans made by hometown banks to needy college students. Graduate students may borrow up to $2,000 per year — up to a combined total of $4,000 — with repayments beginning the fifth month after completion of graduate education. Interest starts when the loan is made.

**Hugh and Mable Wilford Loan Fund:** This trust fund was established in 1970 for the purpose of making loans available to assist worthy and needy students to attend the University of Florida College of Medicine. This loan fund will be administered in accordance with procedures established for the Health Professions Student Loan Program.

**Marie Rosa Valicenti Loan Fund:** Established in membory of Mrs. Valicenti by the Carmen Valicenti Trust to provide loans for students from the northern part of Brevard County and to students from Orange County.

**Dudley Beaumont Loan Fund:** This fund was left to the College of Medicine early in the school's history as a memorial loan fund to assist in meeting the financial needs of its students. It is administered in accordance with the procedures established for the College of Medicine Loan Fund.

**The George Graham Hunter Loan Fund:** This trust fund, established in 1968, is for the purpose of making loans available to qualified medical students or residents in orthopaedics.

**The Dr. P. Phillips Foundation Loan Fund** was established in 1977 to aid students from the Florida counties of Orange, Brevard, Seminole, Lake, and Osceola. A limited amount of scholarship aid is also available from this fund for those academically well qualified and with demonstrated need.

**Other Sources:** Many students have received financial support from local sources. These may be discovered by inquiries addressed to voluntary health agencies, medical organizations, service clubs, church organizations, or trust departments of banks.

## FELLOWSHIPS

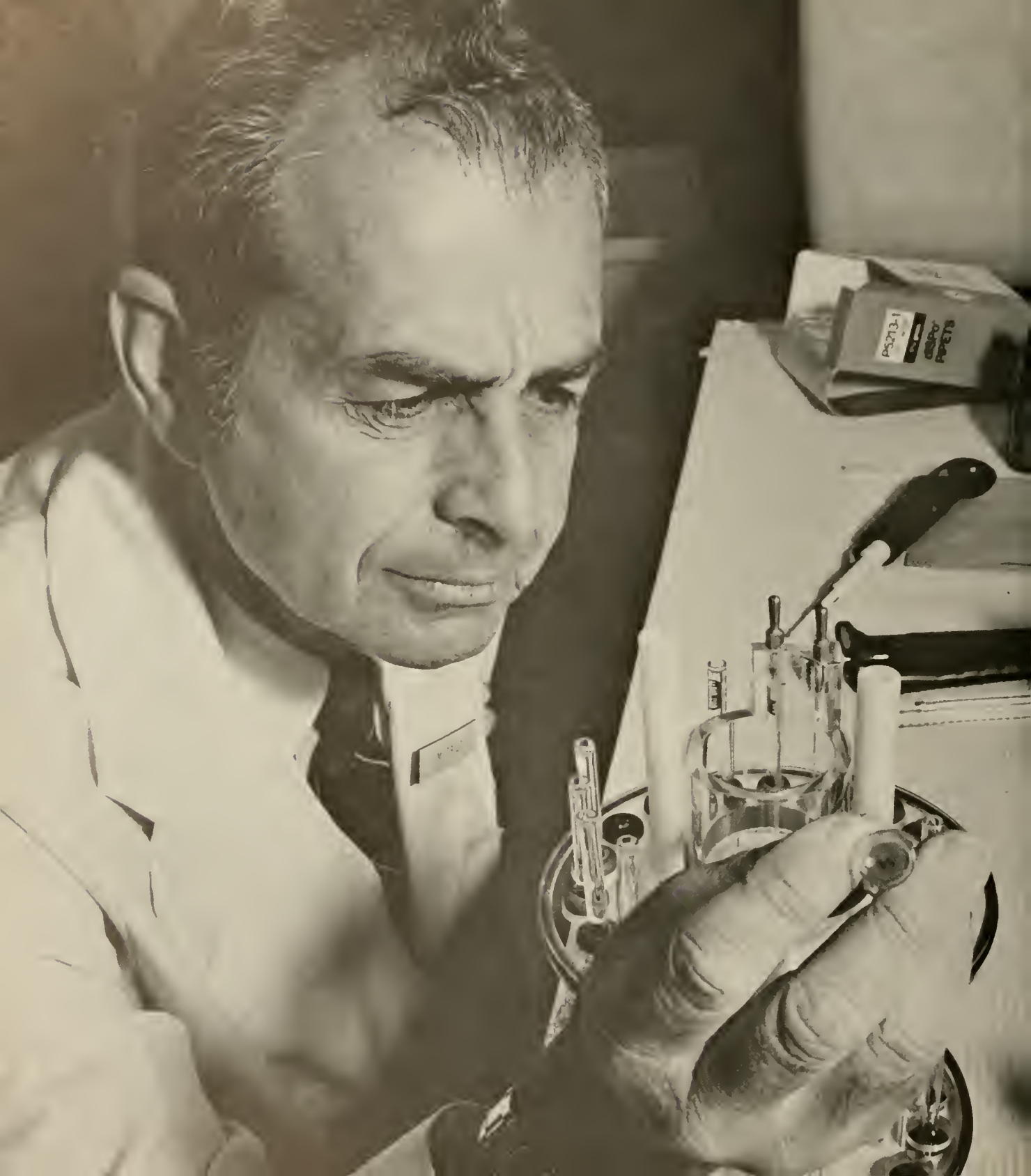
**Student Research Fellowships:** These fellowships are made possible by grants from voluntary health agencies in Florida, pharmaceutical firms, the National Institutes of Health, and other agencies. Medical student research holds a high priority in the College of Medicine with the primary objective being that of involving the inquisitive student in a self-learning experience in which he is encouraged to ask a specific question and seek an answer. As an incentive to become involved in research, students are offered an opportunity to apply for fellowship support which is available on a part-time basis during the academic year and on a full-time basis during summer vacations. Fellowships are awarded on a competitive basis with a progress report and continuation application required for each quarter. In addition to providing fellowships for research, this program also sponsors a conference series for medical students to report the findings of their research and will contribute funds (when available) to the travel expenses of medical students who are selected to present the results of their research at national conferences. On the

basis of the results of the research projects and their presentation, medical students are eligible for the annual Faculty Research and Watson Clinic awards, and graduating students may also be considered for Graduation with Honors based on research.

## LIVING ACCOMMODATIONS

Housing on campus should be arranged through the Office of the Director of Housing, University of Florida, Museum Road at S.W. 13th Street, Gainesville, Florida (392-2181) Beaty Towers have been reserved for upper division and graduate students with suites at $263 per quarter per student. For married students, apartments in Corry, Diamond, Schucht Memorial, University Villages, and Tanglewood are available. These are modern two-story buildings of brick construction containing one, two, and a few three-bedroom apartments at $85-$180 per month (All prices subject to change). The 104 units comprising Schucht Village are adjacent to the Shands Teaching Hospital and priority is given, when possible, to housestaff and upperclass medical students who have clinical responsibilities requiring immediacy to the Health Center. To secure favorable consideration, application for on-campus housing should be made immediately upon acceptance to the College of Medicine.

Private homes and privately operated rooming houses and apartments provide many accommodations for students. The University's Division of Housing also offers a referral service through the Off-Campus Housing Section where current listings are available. These listings are not compiled for mailing since they are subject to constant change, and mutually satisfactory rental arrangements can be made normally only by the student after a personal inspection of facilities and a conference with the landlord. Initial contacts should be made at least 30 days before school begins.



# COURSE DESCRIPTIONS

## PHASE A

The following courses comprise the basic medical science background (Phase A) of the curriculum for the M.D. degree, and are offered to medical and dental students during the first year. Many are available to graduate students in the University, although the number of students who can be accepted is limited by laboratory facilities.

**BMS 5100C GROSS ANATOMY**
9 credits. The basic structure and mechanics of the human body are taught primarily in the laboratory but supplemented with lectures, conferences and demonstrations.

**BMS 5110 MICROSCOPIC ANATOMY**
6 credits. The microscopic structure of the cells, tissues and organs of the human body is taught. Correlation of structure and function is emphasized.

**BMS 5121 HUMAN EMBRYOLOGY**
3 credits. Lectures will briefly cover early human development including gametogenesis. The major emphasis of the course, however, will be on normal organ development and organ morphogenesis. This will be presented by systems and correlated with normal gross anatomy.

**BMS 5004 INTRODUCTION TO CLINICAL MEDICINE**
3 credits. Care presentations dealing with diseases in man, followed by in-depth discussions of the basic phenomena designed to help students understand the pathophysiology of the diseases.

**BMS 5210C BIOCHEMISTRY AND MOLECULAR GENETICS**
9 credits. Lectures and discussion sessions are designed to increase the student's basic biochemical knowledge of cellular functions in health and disease including genetic disorders. The nutrition, physical chemistry, metabolism, and molecular biology of mammalian cells are stressed including such subjects as homeostatis, inborn errors of metabolism, cell genetics, and medical aspects of human genetics.

**BMS 5002 INTRODUCTION TO HUMAN BEHAVIOR I**
2 credits. Patients' interactions with disease, treatment, family, and community are explored. Interviews with patients to develop skills in communication along with appreciation of subjective experiences of both patients and doctors. Community program developments and selected behavioral science contributions to health care are included. Creative collaboration between students and faculty is encouraged to meet the increasingly urgent psychosocial concerns of medicine.

**BMS 5003 INTRODUCTION TO HUMAN BEHAVIOR II**
2 credits. Human Behavior II represents a brief introduction to the complex biological, social, and environmental interactions serving to affect human behavior. These interacting influences on human behavior are discussed in an interdisciplinary fashion incorporating both basic and clinical faculty.

**BMS 5000 HUMAN SYSTEMS I**
9 credits. Interdisciplinary study of the nervous, respiratory, cardiovascular, renal, and body fluid systems. Concepts of physiology and pharmacology are presented. Some clinical applications are included.

**BMS 5001 HUMAN SYSTEMS II**
15 credits. A continuation of BMS 5000 with attention to the gastro-intestinal, endocrine, reproductive and hematopoietic systems. Concepts of general pathology, immunology and inflammation are introduced.

# PHASE B

Most of the following courses involve detailed day-to-day care of patients in the Shands Teaching Hospital and Clinics. They require highly specialized professional preparation as well as large amounts of time which must, of necessity, be somewhat irregularly scheduled as particular patients are available. These courses, therefore, are limited to candidates for the M.D. degree. The individual clinical courses offered are integral parts of the teaching program in the Phase B portion of the curriculum. With the exception of BMS 5460, 5600, 5465, 5830 and BCC 5151, these course are offered to parts of the class in rotation for periods of approximately two months.

**BMS 5460 PHARMACOLOGY**
6 credits. Introductory course presents concepts of drug action (drug-receptor interactions, drug absorption, distribution, and elimination), introduces most of the major classes of drugs, and emphasizes the biochemical and physiological basis for understanding drug action. Groups of drugs considered include anesthetic, autonomic, central nervous system, renal, cardiovascular and antimicrobial compounds.

**BMS 5600 SYSTEMIC PATHOLOGY**
3 hours lecture and conference, and 8 hours laboratory. 11 credits. Prerequisites: MED 561 and completion of first year of medical school. Functional and anatomical pathologic changes are correlated with etiology, pathogenesis and clinical manifestations of human disease. Participation in the autopsy program is required.

**BMS 5465 ADVANCED PHARMACOLOGY**
One month, 6 credits. Lectures, conferences and laboratory. Fundamentals of drug action are studied with emphasis on cardiovascular, neurological, and endocrine systems. Joint teaching in basic aspects of appropriate clinical areas (e.g., anesthesia, ophthalmology) will be conducted.

**BMS 5151 DISORDERS OF THINKING, EMOTION AND BEHAVIOR**
4 credits. This course enables the second year medical students to improve interviewing techniques, to learn symptomatic psychopathology, to conduct comprehensive examinations and interrelate symptoms and to become familiar with descriptive and dynamic aspects of common clinical syndromes and diagnostic categories. Small group teaching is devoted to lecture-demonstrations and clinical work.

**BCC 5120 NEUROLOGY CLERKSHIP**
4 credits. Participation on the inpatient and outpatient services of the Neurology Department at Shands Teaching Hospital, VA Hospital and affiliated teaching services at regional centers. The student will learn how to evaluate patients by assuming ongoing responsibility while appreciating various physiologic, psychologic, chemical and pathologic aspects of neural function.

**BMS 5830 PHYSICAL DIAGNOSIS AND INTRODUCTION TO CLINICAL MEDICINE**
Two months. 7 credits. With the participation of all clinical departments the student is introduced to the common and basic components of physical and laboratory examinations, techniques of interviewing and history taking, and care of th patient in all fields of medicine.

**BCC 5170 COMMUNITY HEALTH CLERKSHIP**
8 credits. This is a five week clinical rotation in which students participate in health care in various community settings. Experiences in rural areas, big city ghettos, or preceptorships with practicing physicians will be individually arranged. Whenever possible the student will live in the community he serves so he can see first hand medical and health problems as they exist in different communities as well as the success and shortcomings of present day care in meeting them. The community health clerkship will be coordinated with the medicine and pediatric clerkship.

**BCC 5100 ANESTHESIOLOGY CLERKSHIP**
2 credits. One week. Intensive lecture and laboratory instruction in life support systems, including

practice in the skills necessary to approach and treat the patient suffering from acute cardiopulmonary collapse of varying etiology.

**BCC 5150 PSYCHIATRIC CLERKSHIP**

Two months. 12 credits. observation and supervised treatment of psychiatric patients in the Shands Teaching Hospital and VA Hospital inpatient, outpatient, and consultation services. Weekly didactic seminars, experience, and instruction are given in the application of this material to the practice of medicine.

**BCC 5130 OBSTETRICAL AND GYNECOLOGICAL CLERKSHIP**

Two months. 12 credits. Participation in obstetric and gynecologic management of women in the Shands Teaching Hospital and Clinics provides a learning experience with an appropriate degree of responsibility. The student focuses attention on the subject of biology and reproduction.

**BCC 5110 MEDICAL CLERKSHIP**

Two months. 12 credits. Active participation under supervision in ward and clinic care of patients. Close tutorial relationship with staff in lectures, conferences, and teaching rounds. A program in clinical therapeutics is conducted jointly with the Department of Pharmacology and Therapeutics.

**BCC 5140 PEDIATRIC CLERKSHIP**

Two months. 12 credits. Active participation in inpatient and outpatient medical and surgical management of infants and children. Teaching occurs in Pediatric Clinic, Emergency Room at Jacksonville's University Hospital and the Shands Teaching Hospital, the latter serving as the major referral center for children in north and central Florida. Focus is upon diagnosis, management and consequences of illness in children and among their families.

**BCC 5160 SURGICAL CLERKSHIP**

Two months. 12 credits. Experience in the care of surgical patients in the ward and in the operating room. Instruction in surgical biology is provided by a series of daily seminars and lectures.

# PHASE C

Within the general framework of Phase C, a student will register for 20 credit hours of which 4-20 hours are chosen from Elected Topics and the balance from other offerings in the College of Medicine and the University. The total curricular program must be approved by the College of Medicine prior to registration.

**GMS 5930 ELECTED TOPICS I**

4-20 credits. offered by all medical science and clinical departments of the College as an opportunity for concentrated work in a field of particular interest to the student. Individual research, a preceptorship, or clinical clerkship in the College or in another medical center in this country or abroad may be elected.

**GMS 5931 ELECTED TOPICS II**

4-20 credits. Same as GMS 5930

**GMS 5932 SELECTED TOPICS**

12 credits. Same as GMS 5930.

**GMS 5933 SELECTED TOPICS II**

12 credits. Same as GMS 5930.

**GMS 5934 SELECTED TOPICS III**

6 credits. Same as GMS 5930.

**GMS 5935 ELECTED TOPICS III**

4-20 credits. Same as GMS 5930.

**GMS 5936 ELECTED TOPICS IV**

4-20 credits. Same as GMS 5930.

**GMS 5937 ELECTED TOPICS V**
4-20 credits. Same as GMS 5930.
**GMS 5938 ELECTED TOPICS VI**
4-20 credits. Same as GMS 5930.

# GRADUATE COURSES IN THE MEDICAL SCIENCES

Programs leading to the Ph.D. and M.S. degrees in the medical sciences (with a major in anatomy, biochemistry and molecular biology, immunology and medical microbiology, neuroscience, pathology, pharmacology and therapeutics, or physiology) are offered by the College of Medicine. In addition the M.S. and Ph.D. degrees in biochemistry are offered by the Department of Biochemistry and Molecular Biology. Training in these scientific disciplines is planned to give experience in research and teaching, rather than in clinical practice for which the M.D. degree program is designed.

Although no graduate major may be completed without adequate course work at the 600 level or higher, the 500 level courses listed for each individual department also are available for graduate credit as part of the candidate's major.

The following general courses are offered by each participating department. Most of these courses, as well as others listed below, are also available to qualified graduate students from other divisions of the University.

**GMS 6905 RESEARCH IN MEDICAL SCIENCES**
1 to 15 credits. May be repeated for credit. Supervised research other than that toward fulfillment of the thesis or dissertation research in Departments of Biochemistry and Molecular Biology, Immunology and Medical Microbiology, Neuroscience, Pathology, Pharmacology & Therapeutics and Physiology.
**GMS 6910 SUPERVISED RESEARCH**
1 to 5 credits. Credit not applicable toward degrees. May be repeated.
**GMS 6940 SUPERVISED TEACHING**
1 to 5 credits. Credit not applicable toward degrees. May be repeated.
**GMS 6971 MASTER'S RESEARCH: ANATOMY, BIOCHEMISTRY AND MOLECULAR BIOLOGY, IMMUNOLOGY AND MEDICAL MICROBIOLOGY, NEUROSCIENCE, PATHOLOGY, PHARMACOLOGY & THERAPEUTICS, AND PHYSIOLOGY**
1 to 17 credits.
**GMS 7980 DOCTORAL RESEARCH: ANATOMY, BIOCHEMISTRY AND MOLECULAR BIOLOGY, IMMUNOLOGY AND MEDICAL MICROBIOLOGY, NEUOSCIENCE, PATHOLOGY, PHARMACOLOGY & THERAPEUTICS, AND PHYSIOLOGY**
1 to 17 credits.

## ANATOMY

The department offers programs leading to the Ph.D. and, in special cases, the M.S. degree in Medical Sciences. Areas of research and training include cellular, developmental and reproductive biology, and mammalian morphology. Prospective

students should have a strong background in biology, and have taken undergraduate courses in inorganic chemistry, organic chemistry, calculus, and physics. Deficiencies can be made up during the first year of graduate study.

**BMS 5100 GROSS ANATOMY**
9 credits. The basic structure and mechanics of the human body are taught primarily in the laboratory but supplemented with lectures, conferences, and demonstrations, as needed.

**BMS 5168 APPLIED GROSS ANATOMY**
5 to 10 credits. A continuation in depth of BMS 5100 with emphasis on applied and correlative aspects.

**BMS 5110 MICROSCOPIC ANATOMY**
6 credits. The microscopic structure of the cells, tissues and organs of the human body is taught. Correlation of the structure and function is strongly emphasized. Fresh issues are used when profitable and each student is issued a loan collection of prepared slides. Recent advances in knowledge of cellular structure, acquired by the use of the phase and electron microscipes, are included.

**BMS 6173 SUBMICROSCOPIC ANATOMY**
4 credits. Prerequisities: Histology or cytology; approval of the staff. Ultrastructure in cells and tissues of vertebrate forms. Current research trends and functional connotations where pertinent.

**BMS 6175 RESEARCH METHODS IN ANATOMY**
1 to 6 credits. Research techniques of histochemistry, radiation biology, experimental embryology, teratology, endocrinology, or electron microscopy under supervision of a staff member. May be repeated with change of content up to a maximum of 12 credits.

**BMS 6150 ANATOMY SEMINAR**
1 to 3 credits. Research reports and discussions of current research literature by departmental staff and graduate students. May be repeated with change of content up to a maximum of 12 hours.

**BMS 6185 FERTILIZATION AND GAMETOGENESIS**
3 credits. Prerequisities: BCM 4313 and 4203 or equivalent. A general course in developmental biology of embryology. Supervised study of publications in specific areas of reproductive biology, including oogenesis, spermatogenesis, fertilization, and immunoreproduction. Weekly conferences, reports, lectures.

**BMS 6176 SPECIAL TOPICS IN ANATOMY**
1 to 6 credits. Readings in the recent literature of anatomy and allied disciplines. May be repeated with change of content up to a maximum of 15 credits.

**BMS 6120 EMBRYOLOGY AND ORGANOGENESIS**
4 credits. Prerequisite: ZOO 3703 or BMS 5100. Human and higher mammalian development. Physiological and clinical considerations stressed where pertinent.

**BMS 6182 TECHNIQUES IN ELECTRON MICROSCOPY**
3 to 5 credits. Prerequisites: courses and/or experience in histology and cytology. Theory and practice of electron microscopic techniques including tissue preparation, sectioning, use of the electron microscope, and photography. Offered every other year (not given in 1977).

**BMS 6166 ADVANCED MISCROSCOPIC ANATOMY**
4 to 6 credits. Prerequisites: BMS 5110 or ZOO 5755, consent of instructor. Histological approaches and techniques relevant to selected research areas. Lectures, microscopic study, and laboratory project relating structural and functional aspects of a problem.

**BMS 6105 ADVANCED GROSS ANATOMY**
3 to 6 credits. Prerequisite: Permission of instructor. Regional and specialized anatomy of the human body taught by laboratory dissection, conferences, and demonstrations. May be repeated with change of content up to a maximum of 9 credits.

**BMS 7643 MEMBRANE BIOLOGY**
3 credits. The structure, composition and turnover of plasma and intracellular membranes will be examined. Topics relating to membrane function will also be considered including pinocytosis, regulation or intracellular exchange, cell recognition, cell communication, and virus formation.

**BMS 6905 INDIVIDUAL STUDY**
1 to 4 credits; maximum 12. Supervised study in areas not covered by other graduate courses.

## BIOCHEMISTRY AND MOLECULAR BIOLOGY

The Department offers programs leading to the Ph.D. and M.S. degrees in Medical Sciences and to the Ph.D. and M.S. degrees is Biochemistry and Molecular Biology. Ordinarily, candidates for the M.S. degree alone will not be accepted.

Prerequisites: Since biochemistry is a multi-disciplinary field, the undergraduate major may be in related biological and physical sciences. Required courses include general, organic, quantitative, and physical chemistry and at least 8 credits in physics and in biology. Calculus is recommended. Pre-baccalaureate courses in biochemistry are not accredited for the graduate program. Any deficiency in the prerequisities must be satisfied as soon as possible after entering Graduate School. Doctoral candidates are required to take a core of biochemistry courses which include BCH 6065, BCH 6206, BCH 6415, BMS 6260C, BMS 6230C and BMS 6231. Depending upon the interests and background of the student additional courses are recommended from the following list: BCH 5056, BCH 6876, BCH 6746, BMS 7200C, BMS 7210C and BMS 7220C.

The course of graduate study for doctoral candidates also includes advanced organic and physical chemistry, physiology, microbiology and genetics.

Courses Available for Graduate Major Credit in Biochemistry and Molecular Biology:

**BCH 6156 RESEARCH METHODS IN BIOCHEMISTRY**
2 to 6 credits. Prerequisites: BCH 6065, 6206, 6415. Only by special arrangement. Biochemical research in which students refine their research techniques in physical biochemistry, intermediary metabolism and radioisotopes under supervision of a staff member.

**BCH 6936 BIOCHEMISTRY SEMINAR**
1 credit. Required of graduate students in biochemistry; open to others by special arrangement. Research reports and discussions of current research literature given by the departmental staff, invited speakers, and graduate students. Graded S/U.

**BCH 6937 SPECIAL TOPICS IN BIOCHEMISTRY**
2 credits; maximum 12. Prerequisites or corequisites: BCH 6065, 6206, 6415. Supervised study in publications in specific areas of biochemistry, with informal weekly conferences, reports and lectures; individual faculty in charge of the course on a rotating basis.

**BCH 7627 BIOCHEMISTRY OF DISEASE**
3 credits. Prerequisites: general courses in biochemistry. The molecular basis of human pathobiology. Biochemical mechanisms underlying selected disease states.

**BCH 7727 MOLECULAR BIOLOGY I**
4 credits. Prerequisites; general courses in biochemistry. Chemical and physicochemical characteristics of the molecules concerned with heredity gene replication, and mutation, and of their biosynthesis and function.

**BCH 7257 MOLECULAR BIOLOGY II**
4 credits. Prerequisites: general course in biochemistry. Biochemistry of nuclei, ribosomes, mitochondria, chloroplasts, golgi bodies, lysosomes, cell walls and membranes; compartmentation and integrated cellular function.

**BCH 7077 MOLECULAR BIOLOGY III**
4 credits. Prerequisites: general course in biochemistry. Molecular virology; growth and replication of animal viruses; organization and structure of viral and cellular chromosomes; RNA synthesis translation and transcription; mechanism of regulation of cellular metabolism.

BCH courses Available for Graduate Major Credit in Biochemistry and Molecular Biology:

**BCH 5055 BIOCHEMISTRY LABORATORY**
2 credits. Corequisites: BCH .
**BCh 5878 CURRENT TRENDS IN BIOCHEMISTRY**
2 credits. Corequirite: .
**BCH 5879 CURRENT TRENDS IN BIOCHEMISTRY II**
2 credits. Corequisite: .
**BCH 5056 CHEMISTRY OF BIOLOGICAL MOLECULES**
4 credits. Mechanistic organic biochemistry. Emphasis on model systems, enzyme active sites, and physical and organic chemistry of biomacromolecules.
**BCH 6055 BIOCHEMICAL STRUCTURE AND FUNCTION**
4 credits. Prerequisites: organic chemistry. Corequisites: physical chemistry.
**BCH 6206 METABOLISM**
4 credits.
**BCH 6415 PRINCIPLES OF MOLECULAR BIOLOGY AND GENETICS**
4 credits.
**BCH 6876 RECENT ADVANCES IN BIOCHEMISTRY**
2 credits. Prerequisites: BCH 6065 or equivalent. Areas of biochemistry and molecular biology selected by the faculty discussed critically and in depth. Emphasis on current controversy and theory, data interpretations, and scientific writing. Classes held informally in small groups during each quarter, involving all biochemistry faculty on a rotating basis.
**BCH 6746 PHYSICAL BIOCHEMISTRY**
4 credits. Prerequisites: general course in biochemistry (BCH 4313) and in physical chemistry. Physical chemistry and molecular structures of proteins, enzymes, and nucleic acids. Fundamentals of physical biochemistry techniques.
**BCH 6296 BIOENERGETICS AND ENZYME MECHANISMS**
4 credits. Prerequisites: BCH 6065, 6206, 6415. Mechanisms of enzyme action and the energy transformations occurring in biological systems.

## IMMUNOLOGY AND MEDICAL MICROBIOLOGY

The Department offers a program leading to the Ph.D. and M.S. degrees in Medical Sciences with specialization in immunology and medical microbiology, including the fields of parasitology and virology. Through individual planning of course work, research and teaching, the graduate student is offered an educational atmosphere which permits him to develop skills and gain intellectual independence and initiative. The program is closely related to that of the Department of Microbiology in the College of Liberal Arts and Sciences.

The undergraduate preparation for graduate study in immunology and medical microbiology should be wide in scope and should include general biology, physics, chemistry (2 to 3 years including organics and quantitative analysis), with statistics, calculus, physical chemistry, genetics, and bacteriology recommended. A bachelor's degree in bacteriology or microbiology is not required. In Graduate School the student will at first obtain a general background in microbiology as preparation for research and teaching. The remaining course work should be arranged according to

the student's interest and competence. Specialization in the following areas is offered: virology, immunology, immunochemistry, cellular immunology, infectious diseases, molecular genetics and parasitology.

**BS 5300 INTRODUCTION TO THE STUDY OF MICROORGANISMS**
7 credits.

**BMS 5301 MEDICAL PARASITOLOGY**
2 credits. Introduction to the major groups of animal parasites infecting man with special emphasis on life history, epidemiology, and laboratory diagnosis.

**BMS 6322 PUBLIC HEALTH MICROBIOLOGY**
1 to 6 credits. Maximum 18 credits. Identical with MCB 6275. Prerequisites: Permission of chairman of department and director of laboratories. Reference study and laboratory practice of diagnostic techniques in the Microbiology Diagnostic Laboratories of the Shands Teaching Hospital, University of Florida J. Hillis Miller Health Center, or in residence at the Bureau of Laboratories, State Department of Health, Jacksonville.

**BMS 6321 SPECIAL TOPICS IN MICROBIOLOGY**
1 to 6 credits. Identical with MCB 6937. Prerequisite: 6 credits in graduate major courses. Organized study of contemporary research in a particular aspect of general microbiology. May be repeated with change of content.

**BMS 6330 VIROLOGY**
5 credits. Identical with MCB 6506C. Natural of viruses and mechanisms of viral replication.

**BMS 6330 VIROLOGY LABORATORY**
3 credits. Identical with MCB 6506L. Prerequisite or corequisite: BMS 6330. Selected laboratory experiments on the nature of viruses and mechanisms of viral replication, as well as other consequences of viral infections.

**BMS 6324 RESEARCH PLANNING**
5 credits. Identical with MCB 6913. Prerequisite: 20 credits in progressive study of microbiology. An outline of the processes involved in scientific research, including initiating a problem, experimental techniques, analysis and evaluation of data, and reporting, illustrated by bacteriological examples.

**BMS 6360 EXPERIMENTAL MICROBIOLOGY**
2 to 5 credits. Prerequisites: 12 credits in microbiology and consent of instructor. Application of physical, chemical and biological techniques to experimental problems in microbiology. Individual laboratory study under supervision. May be repeated with change of content up to a maximum of 8 credits.

**BMS 6323 THE LITERATURE OF MICROBIOLOGY**
3 credits. identical with MCB 6127. Prerequisites: 12 credits of microbiology and consent of instructor. Bibliographic method in seaching the literature of specified areas of the discipline.

**BMS 6350 MICROBIAL METABOLISM**
5 credits. Identical with MCB 6417C. Prerequisite: BCH 6415. The intermediary metabolism of microorganisms; emphasizes thôse metabolic pathways that are unique or characteristic primarily of microorganisms.

**BMS 6351 MICROBIAL PHYSIOLOGY**
5 credits. Identical with MCB 6407C. Prerequisite: BMS 6350C or consent of instructor. The structural and functional elements of microorganisms and the mechanics of their regulatory system. Mechanisms of control of microbial DNA replication, cell division, ribosome and cell-wall formation; kinetic studies of normal and abnormal growth.

**BMS 6314 PRINCIPLES OF IMMUNOLOGY**
5 credits. Identical with PCB 6236. Consent of staff required for registration. Biological and biochemical aspects of host resistance and immunity, with special emphasis on the chemical and physiochemical properties of the proteins and immune reactions.

**BMS 6312 IMMUNOLOGY LABORATORY**
3 credits. Identical with PCB 6236L. Corequisite: BMS 6314. Consent of staff is required for registration.

**BMS 6312 BIOLOGY OF UNCOMMON MICROORGANISMS**
5 credits. Identical with MCB 6757C. Prerequisites: MCB 3020 and consent of instructor. Natural distribution, metabolic activities, isolation and culture of selected groups of microorganisms.

**BMS 6352 MICROBIAL GENETICS**
5 credits. Identical with MCB 6306. Prerequisites: general genetics. Microbial genetics, including mutation, selection, transformation, transduction, conjugation and episomal factors, molecular structure and function of genes.

**BMS 6305 PARASITIC DISEASES OF THE TROPICS AND SUBTROPICS**
5 credits. Identical with MCB 6717C, and VES 6362. A course in animal parasitology covering the mechanisms of parasitic infections, the physiology of parasites and the immune responses of the host; public health, veterinary and general aspects of various parasites affecting man and animals. Laboratory work includes experiments showing the effects of nutrition of parasites; immune responses, factors and modes of transmission; life cycles; morphology.

**BMS 6331 VIRAL DISEASES**
3 credits. Identical with MCB 6520. Prerequisite: BMS 6330, MCB 6506C. Pathogenesis of viral disease including cytopathic and oncogenic viruses. Diagnostic and preventive measures.

**BMS 6353 MICROBIAL INFECTIONS**
5 credits. The pathogenesis of selected bacterial and fungal diseases emphasizing the clinical and pathological aspects of human infection.

**BMS 6310 MICROBIOLOGY 1**
6 credits. Identical with MCB 6056. Intensive review of principles of immunity, physiology and genetics of bacteria, virology, infection, and ecology (see also BMS 6311).

**BMS 6311 MICROBIOLOGY 2**
3 credits. Identical with MCB 6051C. Continuation of BMS 6310.

**BMS 6354 REGULATION IN BIOLOGICAL SYSTEMS**
5 credits. Identical with MCB 6457C. Prerequisites: BMS 6350C, BCH 6065, BCH 6206. Control of enzyme activity; kinetic control (allosteric and non-allosteric), control at the energy level, permeases. Control of enzyme synthesis; positive and negative; repression, induction, catabolic repression, cyclic AMP. Regulation in higher organisms; hormonal control.

**BMS 6930 SEMINAR**
1 credit. Identical with MCB 6937. Attendance is required of all graduate majors at one research presentation and one graduate report each week as scheduled. May be repeated with change of content. Graded S/U.

**BMS 7932 JOURNAL COLLOQUY**
1 credit. Identical with MCB 7922. Critical presentations and discussion of recent original articles in the microbiological literature. May be repeated with change of content.

**BMS 7931 RESEARCH CONFERENCE**
1 credit. Identical with MCB 7914. Critical discussion and appraisal of research programs of the faculty and students of the department. May be repeated with change of content. Graded S/U.

**BMS 7313 CLINICAL IMMUNOLOGY**
2 credits. Principles of basic immunology and immune reactions important in human disease such as immediate and delayed hypersensitivity, immune complexes, the Arthus phenomenon, and graft rejection.

## NEUROSCIENCE

The department offers programs leading to the Ph.D. and M.S. degrees in Medical Sciences with specialization in the basic neural and neurobehavioral sciences. While there are no fixed entrance prerequisites, prospective students should obtain a reasonable undergraduate background in biochemistry, physiology, statistics, and behavioral science. Students admitted with deficiencies in these areas will be required to obtain remedial training. All students will receive core training in neuroanatomy, neurophysiology, neorobehavioral science, neurochemistry, neuroendocrinology, neurohistology, and neuropharmacology. The remainder of the program will consist of laboratory research and advanced courses and seminars from this and other departments.

**GMS 5702 NEUROHUMORS AND BEHAVIOR**
4 credits. Prerequisite: Consent of instructor. Actions of putative neurotransmitters and neuromodulators and drugs on animal behavior. The localization, metabolism, storage, release and physiological action of each group of neurotransmitters will also be reviewed.

**BMS 5511 VISION**
4 credits. Prerequisite: Consent of instructor. The visual process and supporting systems approached from the orientation of human vision.

**GMS 6700 HISTORY OF THE NEUROSCIENCES**
3 credits. Prerequisite: Consent of instructor. History of the discoveries, concepts, and technical advances in the nervous system disciplines from ancient to modern times. The emergence of the several neurosciences as experimental disciplines that provide a foundation for rational medical applications.

**GMS 6703 PAIN AND SOMESTHESIS**
4 credits. Current research on cental nervous system coding and information transfer, using somesthesis as a model with particular emphasis on pain.

**GMS 6701 COMPARATIVE NEUROANATOMY AND NEUROPHYSIOLOGY**
4 credits. Prerequisite: BMS 7142C or equivalent. The phylogenetic development of the central nervous system of vertebrate animals considered from the behavioral, anatomical, and electro-physiological points of view.

**BMS 6531 PHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM**
3 credits. Special and current problems in brain and spinal cord function covered in seminars.

**BMS 6510 NEUROPHYSIOLOGY**
3 credits. Physiology of nerve and muscle, central nervous system, and the special senses.

**GMS 6710 NEUROBIOLOGY**
5 credits. Prerequisite: Background in biological or behavioral sciences. Structure and physiology of the nervous system as it pertains to control of behavior.

**GMS 6732 NEUROENDOCRINOLOGY**
4 to 6 credits. Prerequisite: Permission of instructor. Neural regulations of endocrine systems in vertebrate animals. Correlative study of neuroanatomical, neurophysiological and neurochemical aspects of endocrine control.

**BMS 6512 A SURVEY OF SENSORY SYSTEMS**
4-6 credits. Identical to EXP 6108. Prerequisite BMS 6510 or equivalent. A group of specialists provide a survey of theories and experimental data on human and subhuman sensory reception and encoding. Auditory, visual, cutaneous and chemical senses are included.

**BMS 6514 SEMINAR IN SENSORY PROCESSES**
1 credit. Identical to EXP 6109. Topics of current interest in various areas of the sensory specialties are discussed within the seminar framework. Graded S/U.

**BMS 6131 NEUROHISTOLOGY**
2 credits. Prerequisites: BMS 7142C and consent of instructor. Histological approaches and techniques for the study of the neuronal, neuroglial, and mesenchymal cellular components of the central and peripheral nervous system.

**BMS 6532 NERVE AS A TISSUE**
2 credits. Prerequisite: Permission of instructor. Seminar on current research problems in the area of cellular interactions in the nervous system. Readings and discussion from articles in the fields contributing to the physiology, chemistry and anatomy of the nervous system.

**BMS 7467 PHYSIOLOGY AND PHARMACOLOGY OF EXCITABLE MEMBRANES**
3 credits. Prerequisite: Consent of instructors. Membrane ionic permeability changes underlying action and synaptic potential generation. Application of electrophysiological and radioactive tracer techniques to the analysis of drug action on excitable membranes. Offered jointly by the Departments of Pharmacology and Therapeutics and Physiology.

**GMS 7711 NEURAL-BEHAVIORAL-ENDOCRINE INTERACTIONS**
4 credits. Prerequisite: Consent of instructor. Interrelationships of endocrine hormones, nervous system activity, and behavior. Sample topics include the role of hormones in sexual behavior, aggression, stress, parental behavior, learning and memory, mood, and target organ physiology.

**GMS 7712 NEUROBEHAVIORAL RELATIONS**
4 credits. Identical with PSB 7248. Prerequisite: BMS 7142C or consent of instructor. Theories and data on the central nervous system basis of higher order function. Emphasis will be on arousal, purposeful behavior, and learning.

**GMS 7713 INFORMATION STORAGE: A NEUROBIOLOGICAL APPROACH**
4 credits. Identical with PSB 7817. Prerequisite: BMS 7142C or consent of instructor. Consideration of data dealing with basic issues concerning the nature and behavioral plasticity and information storage and their central nervous system foundations. Particular emphasis will be paid to memory disruption and facilitation as an experimental tool in the study of memory processes.

**GMS 7714 DEVELOPMENTAL NEURAL-BEHAVIORAL-ENDOCRINE INTERACTIONS**
2 to 4 credits. Interrelationships and roles of endocrine hormones, behavior and nervous system activity during the perinatal period on the development of adult patterns of neuroendocrine activity and behavior.

**GMS 7721 NEURAL MECHANISMS OF INGESTION AND ENERGY REGULATION**
4 credits. Identical with PSB 7719. Neuroanatomical, neurobehavioral, and neoroendocrinological mechanisms involved in the regulation of food and water consumption and regulation of body weight.

**BMS 7533 COLLOQUIUM IN NEUROBIOLOGY**
1 to 2 credits. Prerequisite: Consent of instructor. Current theoretical issues that relate to the neurophysiological, physiological, chemical and behavioral approaches to the study of the nervous system. May be repeated with change of content up to a maximum of 16 credits.

**BMS 7513 PHYSIOLOGICAL BASIS OF BRAIN RHYTHM**
3 credits. Prerequisite: Consent of instructor. An analysis of the structural, physiological and pharmacological substrates for electrical activity of the central nervous system as manifested in the normal electroencephalogram including the development and relationship to evoked potentials.

**GMS 7740 NEUROSCIENCE SEMINAR**
1 to 2 credits. Prerequisite: Permission of instructor. Reading and discussion of current topics in neuroscience. May be repeated with change of content up to a maximum of 16 credits.

**GMS 7741 SPECIAL TOPICS IN NEUROSCIENCE**
1 to 6 credits. Prerequisite: Permission of instructor. Intensive reading and lectures in specialized fields of neuroscience and allied disciplines. May be repeated with change of content up to a maximum of 16 credits.

**GMS 7742 RESEARCH METHODS IN NEUROSCIENCE**
1 to 10 credits. Prerequisite: Permission of instructor. Research techniques in neurohistory, neurophysiology, neuroendocrinology, neurochemistry, neuropharmacology, neurobehavioral science, experimental neurology, neuroscience instrumentation, or electron microscopy under supervision of a staff member. May be repeated with change of content up to a maximum of 16 credits.

**BMS 7142 MEDICAL NEUROSCIENCE**
6 credits. Prerequisite: Consent of instructor. A comprehensive overview of human neuroanatomy from the subscellular to the gross tissue level. Lectures will also cover neurochemistry, neuropharmacology, neurophysiology, neuroendocrinology and neurobehavioral biology. Clinical correlations and applications will be given.

**BMS 7165 RECENT ADVANCES IN NEUROSCIENCE**
1 to 2 credits. Prerequisite: Consent of instructor. Seminar and group discussions of recent advances in one or more areas of neuroscience. These areas include neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroendocrinology and neurobehavioral biology. May be repeated up to a maximum of 16 credits.

**GMS 7731 MOLECULAR NEUROBIOLOGY**
4 credits. Function of biochemicals in nervous tissue. Including the function and metabolism of neurotransmitters and other neurohumors, the structure and properties of membranes, metabolism and function of macromolecules, axoplasmic transport and the development of nervous systems.

**GMS 7720 MOTOR SYSTEMS**
4 credits. Prerequisite: Consent of instructor. A study of the basic mechanisms involved in motor activity including a detailed analysis of the muscle spindle system and its central control by spinal cord and supraspinal mechanisms. Emphasis is on normal rather than abnormal processes.

**GMS 7730 FUNCTIONAL NEUROCHEMISTRY**
4 credits. Prerequisite: Biochemistry. A survey of molecules that play a special role in nervous system function or respond to neural stimulation. Included will be studies of nucleic acids, proteins, glycoproteins, glycolipids, phospholipids, cyclic nucleotides and neurotransmitters and the enzymes associated with their metabolism. Results from simple systems will be related to those of higher brain function.

**BMS 7143 STRUCTURE AND FUNCTION IN THE AUDITORY SYSTEM**
4 credits. Prerequisite: BMS 7142C or consent of instructor. Laboratory seminar on the anatomy and physiology of the auditory system. Stress on brainstem nuclei and their interconnections.

**GMS 7733 INTEGRATIVE NEUROBIOLOGY I: CELLULAR AND MOLECULAR NEUROBIOLOGY**
6 credits. Cellular and subcellular structure of nervous tissue. Development of the nervous system and factors involved in its differentiation. Nervous system biochemistry including metabolism and function of neurotransmitters. Axoplasmic transport. Degeneration and regeneration and trophic functions of nervous tissue.

**GMS 7750 INTEGRATIVE NEUROBIOLOGY II: COMPARATIVE NEUROANATOMY**
3 credits. Lecture and laboratory course concerning general principles of vertebrate neuroanatomy and brain and spinal cord organization. Mammalian neuroanatomy stressed.

**GMS 7760 INTEGRATIVE NEUROBIOLOGY III: SYSTEMS NEUROBIOLOGY**
6 credits. Lecture course concerning neurobiological systems; specifically the motor systems, non-specific systems, sensory systems and neurotransmitter-neuroendocrine systems.

**GMS 7715 INTEGRATIVE NEUROBIOLOGY IV: BEHAVIORAL NEUROBIOLOGY**
6 credits. Lecture and laboratory course concerning the neurobiological substrates of behavior, and neurobehavioral techniques.

**GMS 7743 DEVELOPMENTAL NEUROBIOLOGY**
4 credits. Seminar on the neuroanatomical and functional development of the nervous system. Includes discussions of mechanisms of embryonic neurogenesis, behavioral embryology, and current research in neuroembryology.

## PATHOLOGY

The Department offers programs leading to the Ph.D. and M.S. degrees in Medical Sciences with specialization in experimental pathology.

Areas of specialization in experimental pathology include immunobiology, tumor biology, molecular biology, immunopathology, infectious diseases, immunohematology, clinical chemistry, electron microscopy, virology, comparative pathology, nutritional pathology, clinical pathology, renal pathology, and neuropathology.

New graduate students in the experimental pathology program should have adequate undergraduate training in general chemistry, organic chemistry, general physics, general biology, and two or more advanced courses in the areas of physiological, developmental, or cellular biology, or in the case of students in clinical chemistry, courses in analytical, inorganic, and physical chemistry. Students may find it necessary to remedy deficiencies in their background by taking some undergraduate courses after admission to Graduate School. Courses in the major program will be determined by the student's advisory committee. The minor may be taken in any appropriate area.

**BMS 6700 MECHANISMS OF DISEASE, PART I**
5 credits. General principles of pathology and the mechanisms responsible for disease processes. May be taken by advanced undergraduates with consent of staff.

**BMS 6601 SYSTEMIC PATHOLOGY**
2 to 5 credits. Prerequisites: BMS 6700 and consent of staff. Pathological processes affecting each organ or organ system.

**BMS 6612 CLINICAL CHEMISTRY AND TOXICOLOGY**
3 credits. Chemical techniques undertaken for the diagnosis of disease. Methods of toxicology.

**BMS 6605 SPECIAL CYTOLOGY**
5 credits. Types of cells such as nerve, secretory, bone, muscle, connective tissue, blood, and lymphoid.

**BMS 6640 IMMUNOHEMATOLOGY**
3 credits. Immunologic, genetic, and anthropologic significance of blood group antigens and antibodies, with emphasis on their serologic and immunochemical characteristics.

**BMS 6613 CLINICAL CHEMISTRY AND TOXICOLOGY; A ROTATION**
4 to 30 credits. Participation in all phases of practical clinical chemistry and toxicology. Chemical methodology, clinical interpretation, and significance of laboratory measurements for the diagnosis of the sick. Individual investigative project in clinical chemistry and toxicology. Students specializing in clinical chemistry must spend three terms on this rotation.

**BMS 6701 MECHANISMS OF DISEASE, PART II**
5 credits. General principles of pathology and the mechanisms responsible for disease processes. May be taken by advanced undergraduates with consent of staff.

**BMS 6621 SPECIAL TOPICS IN PATHOLOGY**
1 to 6 credits. Prerequisite: Permission of department. Supervised conferences and laboratory work. Topics selected to meet each student's needs. May be repeated with change of content up to a maximum of 18 credits.

**BMS 6620 SEMINAR IN PATHOLOGY**
1 credit. Required of graduate students in pathology; open to others by permission of the department. Current research literature and research reports by graduate students, department staff, and invited speakers.

**BMS 6606 COMPARATIVE PATHOLOGY**
4 credits. Prerequisite: BMS 6700. The diseases of various organ systems of domestic and laboratory animals compared and contracted with spontaneous diseases of man.

**BMS 6616 NUTRITIONAL AND BIOCHEMICAL PATHOLOGY**
4 credits. Prerequisite: Consent of instructor. The relationships between biochemical alterations and microscopic lesions in spontaneous and experimentally induced diseases having a defined nutritional or biochemical etiology.

**BMS 6630 TUMOR BIOLOGY**
4 credits. Pathobiology, biochemistry, and molecular biology of neoplasia; viral and chemical carcinogenesis; immunology and therapy of cancer in man and animals.

**BMS 6641 IMMUNOPATHOLOGY**
3 credits. Abnormalities and diseases with immunological basis or component. Clinical and experimental specimens for analysis by modern immunological techniques.

**BMS 6631 EXPERIMENTAL TUMOR BIOLOGY**
3 credits. Prerequisite: MS 5932 or consent of staff. The development of laboratory skills and fundamental techniques in the study of various phenomena in tumor biology. Students will work in direct association with members of the GMS 5932 staff.

**BMS 6642 IMMUNOBIOLOGY**
5 credits. Biological aspects of the defense systems, specific and nonspecific, cellular and humoral, amplification systems involving immune interactions; normal and abnormal conditions and sequellae, pathologic aspects of immunologic phenomena; phylogenetic and developmental aspects of immunity.

**BMS 6642 IMMUNOBIOLOGY LABORATORY**
3 credits. Prerequisite: Consent of staff. Corequisite: BMS 6642. Project oriented laboratory skills and techniques in immunobiology. Each student or small group of students will work in close association with a faculty member.

## PHARMACOLOGY AND THERAPEUTICS

Students entering the course of study for the degree of Ph.D. in Medical Sciences with a major in pharmacology and therapeutics should present undergraduate course credits in chemistry, including quantitative analytical, organic and physical chemistry; elementary physics and biology, and mathematics through calculus. Otherwise well-qualified students with certain deficiencies in preparation may be allowed to make these up during the first year of graduate study. In addition to elementary and advanced study in pharmacology, candidates will pursue courses in biochemistry, physiology, and other medical sciences as determined by consultation with their advisory committees.

**BMS 5465 ADVANCED PHARMACOLOGY**
6 credits. Lectures, conferences, and laboratory. Fundamentals of drug action are studied with emphasis on cardiovascular, neurological, and endocrine systems. Joint teaching in basic aspects of appropriate clinical areas (e.g., anesthesia, ophthalmology) will be conducted.

**BMS 6400 INTRODUCTION TO PHARMACOLOGY**
5 credits. Prerequisites: Elementary courses in biochemistry and physiology. An overview of the entire field of pharmacology as the study of the interactions between living systems and foreign chemicals. Intended to prepare major for advanced courses or to familiarize non-majors with the area.

**BMS 6463 THEORETICAL PHARMACOLOGY**
5 credits. Prerequisite: CHM 3401. Physical, physiochemical, and mathematical aspects of pharmacology, including the theory of drug-receptor complexes, transport and distribution kinetics, and the kinetics of enzyme inhibition by drugs.

**BMS 6468 CHEMICAL PHARMACOLOGY**
5 credits. Chemical aspects of several special areas of modern pharmacology, such as metabolism of foreign compounds, structure-activity relationships, and the biochemistry of drug activity.
**BMS 6466 PHYSIOLOGICAL PHARMACOLOGY**
5 credits. Influence of drugs upon physiological systems. Cholinergic and adrenergic mechanisms in autonomic pharmacology, renal and endocrine pharmacology, control of lung vasculature and smooth muscle in respiratory pharmacology.
**BMS 6420 SEMINAR IN PHARMACOLOGY**
1 credit. Research reports and discussions of current literature by graduate students, faculty, and invited speakers.
**BMS 7421 RESEARCH METHODS IN PHARMACOLOGY I**
1 credit. Readings, discussions, and practical experience with modern research methods both instrumental and biological, used in pharmacology.
**BMS 7422 RESEARCH METHODS IN PHARMACOLOGY II**
1 credit. Continuation of BMS 7421.
**BMS 7423 TOPICS IN PHARMACOLOGY**
1 to 4 credits. Seminars, informal conferences, and/or laboratory work on the use of drugs in biochemical and physiological investigations. May be repeated with change of content up to a maximum of 12 credits.
**BMS 7467 PHYSIOLOGY AND PHARMACOLOGY OF EXCITABLE MEMBRANES**
3 credits. Prerequisite: Consent of instructors. Membrane ionic permeability changes underlying action and synaptic potential generation. Application of electrophysiological and radioactive tracer techniques to the analysis of drug action on excitable membranes. Offered jointly by the Departments of Pharmacology and Therapeutics and Physiology.

## PHYSIOLOGY

The Department offers programs leading to Ph.D. and M.S. degrees in Medical Sciences with specialization in physiology, Prerequisites: Undergraduate majors that are appropriate foundations for the study of physiology are: biology, chemistry, engineering, mathematics, or physics. The following courses are especially useful as background for the study of physiology: general biology, vertebrate biology, general chemistry, analytical chemistry, organic chemistry, physical chemistry, general physics, calculus, and statistics. Students usually find it necessary to remedy deficiencies in their backgrounds by taking a few undergraduate courses after admission to Graduate School.

Course requirements: Most students will be advised to take the following, unless equivalent courses have been taken elsewhere: BMS 7165, BCH 6065, 6206, and 6415. Additional courses will be elected from those listed below and from those offered by other departments. A minor field of study is not required but may be elected in another department of the College of Medicine such as Neuroscience or Immunology and Medical Microbiology, or elsewhere in the university in such Departments as Biochemistry and Molecular Biology, Physics, Psychology, or Zoology.

Dissertation: Research for the dissertation may be carried out in any of a number of areas of physiology including neurophysiology, endocrinology, respiration,

circulation, physiology of muscle, environmental physiology, comparative physiology, and neonatal physiology.

**BMS 5511 VISION**
4 credits. Prerequisite: Consent of instructor. The visual process and supporting systems approached from the orientation of human vision.

**BMS 5520 PRINCIPLES OF PHYSIOLOGY**
9 credits. Prerequisite: APB 3203 or equivalent. Mechanisms of physiological processes with special reference to the human body. Bioelectricity, excitability, muscular contractions, circulation of blood, homeostasis of body fluids, renal function, respiration, digestion, hormones, central nervous system, and special senses are studied.

**BMS 5520 LABORATORY IN PHYSIOLOGY**
2 credits. Laboratory courses for BMS 5520.

**BMS 6573 PHYSIOLOGY OF RESPIRATION**
3 credits. Gas exchange in lungs and tissues. Ventilatory mechanics. Respiratory functions of body fluids. Physiological regulations. Comparative physiology of respiratory mechanisms.

**BMS 6574 PHYSIOLOGY OF THE CIRCULATION OF BLOOD**
3 credits. Physiology of the component parts of the circulation, relation of structures and function, emphasis on control mechanisms.

**BMS 6575 RENAL PHYSIOLOGY**
3 credits. Comparative physiological aspects of renal structure and function are covered in seminars.

**BMS 6579 GASTROINTESTINAL PHYSIOLOGY**
3 credits. Structure and basic functions of the vertebrate gastrointestinal system. Topics included are: review of basic transport processes, physiology of the salivary glands, control of gastric secretion and digestion by the stomach, digestion and absorption by the small intestine, physiology of the pancreas and liver, muscular movements of the gastrointestinal system.

**BMS 6576 BODY TEMPERATURE REGULATION**
3 credits. Neural and endocrine aspects of temperature regulation, hypo- and hyperthermia, adaptation to cold and heat, and hibernation will be covered. Comparative physiology of temperature regulation will be stressed.

**BMS 6536 RECENT ADVANCES IN PHYSIOLOGY**
3 credits. Content varies from year to year but covers recent advances in physiology. May be repeated with change of content up to a maximum of 15 credits.

**BMS 6560 RESEARCH METHODS IN PHYSIOLOGY**
2 to 6 credits. Maximum 9 credits. The special needs of each student will be met by conferences and laboratory work.

**BMS 6535 SEMINAR IN PHYSIOLOGY**
1 credit.

**BMS 6577 NEONATAL PHYSIOLOGY**
3 credits. Physiological regulations in newborn mammals.

**BMS 6512 A SURVEY OF SENSORY SYSTEMS**
4 credits. Identical with EAB 6719. Prerequisite: BMS 6510. Theories and data of human sensory reception and encoding. Audition, vision, and chemical and cutaneous senses.

**BMS 6537 SEMINAR ON VISION**
4 credits. Identical with EXP 6119. Prerequisite: BMS 6510. Selected current research and theory in visual function.

**BMS 6578 PHYSIOLOGY OF THE MAMMALIAN THYROID GLAND**
3 credits. Production, secretion, control, and function of the thyroid hormones will be covered; interaction with other hormones will be stressed.

**BMS 7467 PHYSIOLOGY AND PHARMACOLOGY OF EXCITABLE MEMBRANES**
3 credits. Prerequisite: Consent of instructors. Membrane ionic permeability changes underlying action and synaptic potential generation. Application of electrophysiological and radioactive tracer techniques to the analysis of drug action on excitable membranes. Offered jointly by the Departments of Pharmacology and Therapeutics and Physiology.

**BMS 7571 CARDIAC ELECTROPHYSIOLOGY**
3 credits. Study of the normal electrophysiology and ionic mechanisms involved in various regions of the heart.

**BMS 7570 BASIC CARDIAC ELECTROPHYSIOLOGY**
3 credits. Basic introduction to cardiac electrophysiology and current research and techniques on genesis and control of cardiac cell potentials.

**BMS 7572 ELECTROPHYSIOLOGICAL BASIS OF CARDIAC DYSRHYTHMIAS**
3 credits. Study of normal cardiac cellular electrophysiology and changes which result in cardiac dysrhythmias. New techniques in diagnosis and management of dysrhythmias.

# UNDERGRADUATE COURSES

These courses are offered by the College of Medicine for students majoring in other colleges.

**EXP 3719L LABORATORY TOPICS IN PSYCHOPHYSICS**
2 credits. Identical with EXP 3714L. Prerequisite: PSY 2013 or consent of instructor. A practicum in experimental methodology. Students will collect, analyze, and evaluate data on specific problems related to brain mechanisms of skin sensation.

**APB 3203 BASIC ANATOMY AND PHYSIOLOGY**
3 to 5 credits. Identical with HRP 331. Prerequisite: ZOO 2013C. Open to students in the College of Nursing and Health Related Professions and to others by permission of instructor. The structure and physiological function of selected human systems.

**BSC 3023 INTRODUCTION TO HUMAN MOLECULAR BIOLOGY**
3 credits. Identical with BCH 3613. Prerequisite: ZOO 2014, APB 2152, or equivalent; CHM 2043C or equivalent. Introduction to molecular biology of normal and abnormal human systems for students in the Life Sciences. Relationship of biochemistry to advances in medical sciences, organization of human cells, cell duplication and mutability of the human genome, nutrition and metabolic diseases, viral diseases, and cell growth and proliferation (cancer, aging).

**BMS 4022 BIOCHEMICAL AND NEURAL SCIENCES SEMINAR**
1 credit. Discussion of topics of current interest in the biochemical and neural sciences.

**BMS 4025 INTRODUCTION TO THE NEUROSCIENCES**
4 credits. Prerequisite: ZOO 2014 or equivalent and consent of instructor. Structure and basic functions of the mammalian nervous system. Human neuroanatomy, including peripheral and central structures from spinal cord to ceregral cortex. Fundamental concepts of neurophysiology, including initiation, propagation and synaptic transmission of the nerve impulse. Sensory, motor, and integrative activities. Elements of neurochemistry and neuropharmacology.

**BMS 4021 INTRODUCTION TO NEUROCHEMISTRY**
4 credits. Prerequisite: Biochemistry. Discussion of current topics in neurochemistry. To include the metabolism of carbohydrates, lipids, amino acids, proteins and nucleic acids, the metabolism and function of neurotransmitters, and axoplasmic flow.

**BMS 4023 CURRENT TOPICS IN BRAIN AND BEHAVIOR**
4 credits. Identical with PSB 4003. Prerequisite: BMS 4025. Corequisite: BMS 4024. Biological bases of behavior, and structural and functional correlates of learning.

**BMS 4024 EXPERIMENTAL METHODS IN BRAIN AND BEHAVIOR**
1 to 4 credits. Identical with PSB 4104L. Prerequisite: BMS 4025 or PSB 3004. Corequisite: BMS 4023. An introduction to current techniques used in research on brain and behavior.
**BCH 4313 INTRODUCTION TO PHYSICAL BIOCHEMISTRY**
5 credits. Prerequisite: Organic Chemistry. The first half of BCH 4313-BCH 4203. An introduction to physical biochemistry. Topics will include a survey of structure, chemistry and function of nucleic acids, amino acids and proteins, enzyme kinetics, and regulation.
**BCH 4203 INTRODUCTION TO INTERMEDIARY METABOLISM**
5 credits. Prerequisite: BCH 4313. The second half of BCH 4313-BCH 4203. An introduction to intermediary metabolism. Topics will include a survey of biosynthetic and degradative pathways of carbohydrate, lipids, amino acids, in addition to photosynthesis, energy conservation and metabolic control.
**PCB 4535 BIOCHEMICAL GENETICS**
4 credits. Prerequisite: BCH 4313-BCH 4203, BCH 5878, BCH 5879 or consent of instructor. Topics include classic and contemporary experiments illustrative of the main aspects of DNA replication, function and chromosomal organization; DNA synthesis, processing and regulation; specific protein synthesis as expressions of genetic information in: bacteria-phage, mammalian cells-virus, developing and differentiating tissues and genetically characterized plants.
**BMS 4905 MEDICAL SCIENCES SENIOR RESEARCH**
2 to 5 credits. Prerequisite: Senior standing and consent of instructor. Laboratory or literature investigations of problems of current interest in the medical sciences.

Enrollment for the following courses restricted to students accepted in the Basic Biological and Medical Sciences Program:

**BMS 4012 CELL BIOLOGY SEMINAR**
7 credits. Cellular functions in health and disease. The structure and molecular biology of the mammalian cell are stressed including such things as virus-cell interactions, inborn errors of metabolism and bacterial growth. Identical to PCB 4930.
**BMS 4010 INTRODUCTION TO MEDICAL SCIENCES SEMINAR**
4 credits. Selected in-depth special topics in the preclinical basic sciences and their application to clinical problems.
**BMS 4011 INTRODUCTION TO MEDICAL SCIENCES SEMINAR**
4 credits. Continuation to BMS 4010.

# INTERDISCIPLINARY MAJOR IN BIOCHEMICAL AND NEURAL SCIENCES

This program is designed to educate students qualified to enter graduate research programs in biochemistry, neuroscience and other related medical sciences.

Graduates of this program should be excellent candidates for either Graduate or Medical School. A strong background in basic chemistry and zoology courses is required.

### Specific prerequisites are:

Mathematics (MAC 3311, 3312), Chemistry (Complete freshman sequence, CHM 2055C, 2056 and 3119 recommended), Organic Chemistry (CHM 3215 and 3216 recommended), Zoology (ZOO 2013C, 2014).

**The requirements for the major are:**

(1) Lecture courses;—Biochemistry (BCH 4313, 4203, 4 credits each), Neuroscience (BMS 4025, 4 credits), Neurochemistry (BMS 4021, 4 credits), Cell Biology (ZOO 2013C, 5 credits, or equivalent).
(2) Research in neurochemistry, neuroscience or biochemistry (BMS 4905, 12 credits required).
(3) Elective courses selected from offerings of the Departments of Biochemistry and Molecular Biology, Botany, Chemistry, Immunology and Medical Microbiology, Neuroscience, Physiology, Psychology and Zoology.
(4) A student/faculty seminar (BMS 4022, 1 credit) for the last four quarters.

Because of the individualized nature of the program, only a small number of students selected by the sponsoring faculty will be accepted annually.

Application may be made at any time to the Department of Biochemistry and Molecular Biology, the Department of Neuroscience, or to the Assistant Dean for Preprofessional Education in the Colleges of Medicine and Dentistry.

# FACULTY

Effective as of April 1, 1979

## ANATOMY

CAMERON, DONALD F., Ph.D., (Med. Univ. of S. C.)
Instructor

* FELDHERR, CARL M., Ph.D., (Univ. of Pennsylvania)
Professor

HAY, DONALD A., Ph.D., (University of North Dakota)
Assistant Professor

* HOLLINGER, THOMAS G., Ph.D., (Purdue University)
Assistant Professor

* KALLENBACH, ERNST A., Ph.D., (McGill Univ.)
Associate Professor

* LARKIN, LYNN H., Ph.D., (University of Colorado)
Professor

* ROMRELL, LYNN J., Ph.D., (Utah State University)
Associate Professor

* ROSS, MICHAEL H., Ph.D., (New York University)
Professor and Chairman

SANDERS, WILLIE J., B.S., (Univ. of Florida)
Associate Professor

* SELMAN, KELLY, Ph.D., (Harvard University)
Assistant Professor

WEST, CHRISTOPHER M., Ph.D., (Calif. Institute of Tech.)
Assistant Professor

## ANESTHESIOLOGY

ANDERSEN, THORKILD W., M.D., (U. of Copenhagen)
Professor

BERMAN, LAWRENCE S., M.D., (Jefferson Medical Col.)
Assistant Professor and
Assistant Professor of Pediatrics

BETHEA, HENRY L., M.D., (U. of Mississippi)
Assistant Professor and
Chief, Division of Cardiovascular Anesthesia

* BLOCK, A. JAY, M.D., (Johns Hopkins)
Professor and
Chief of Pulmonary Medicine

* BOYSEN, PHILIP G., M.D., (Loyola-Stritch)
Assistant Professor and
Assistant Professor of Pulmonary Medicine

CALDERWOOD, HUGH W., V.M.D., (Univ. of Penn.)
Assistant Professor and
Assistant Professor of Veterinary Medicine
Assistant Professor of Comparative Medicine

* CATON, DONALD W., M.D., (Columbia Univ.)
Associate Professor and
Associate Professor of Obstetrics and Gynecology

CHAPIN, JAMES C., M.D., (Univ. of Michigan)
Assistant Professor

COHEN, JERRY A., M.D., (Univ. of Miami)
Assistant Professor

de PADUA, CONSTANTE B., M.D., (U. of Philippines)
Associate Professor

DOWNS, JOHN B., M.D., (University of Florida)
Associate Professor and
Associate Professor of Surgery

GIBBS, CHARLES P., M.D., (Indiana University)
Associate Professor and
Associate Professor of Obstetrics and Gynecology

GRAVES, SHIRLEY A., M.D., (University of Miami)
Associate Professor and
Chief, Division of Pediatric Anesthesia
Associate Professor of Pediatrics

KUSHINS, LAWRENCE G., M.D., (SUNY Downstate)
Assistant Professor

MODELL, JEROME H., M.D., (Univ. of Minnesota)
Professor and Chairman

MUNSON, EDWIN S., M.D., (Univ. of Tennessee)
Professor and Chief of Anesthesia/VAH

PAUL, WILLIAM L., M.D., (Univ. of Kentucky)
Assistant Professor

PERKINS, HAVEN M., M.D., (Univ. of Louisville)
Professor

POULTON, THOMAS J., M.D., (Ohio State Univ.)
Instructor

SAGA-RUMLEY, SEGUNDINA A., M.D., (U. of Phil.)
Assistant Professor

* SHAH, DINESH O., Ph.D., (Columbia University)
Professor and
Professor of Chemical Engineering

TABELING, BARBARA B., M.D., (Univ. of Kentucky)
Instructor

VOGELHUT, MARK M., M.D., (U. of North Carolina)
Assistant Professor

* WYNNE, JAMES W., M.D., (Cornell University)
Associate Professor and
Associate Professor of Pulmonary Medicine

* Members of the Graduate Faculty

**Volunteer Faculty**

BUSH, WILLIAM E., M.D., (Med. Col. of Georgia)
Clinical Instructor/Nokomis

CHAPMAN, ROY L., JR., M.D., (Univ. of Tenn.)
Clinical Assistant Professor/Gainesville

CROSS, DAVID A., M.D., (Univ. of Oklahoma)
Clinical Instructor/Pensacola

DOUGLAS, MICHAL E., M.D., (Univ. of Arizona)
Clinical Assistant Professor/Boone, N.C.

DRURY, WILEY La DON, M.D., (Med. Col. of Georgia)
Clinical Instructor/Valdosta, Georgia

HOPPER, STEVEN M., M.D., (Univ. of Kentucky)
Clinical Instructor/Gainesville

KRUSE, JOHN C., M.D., (George Washington Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

LEE, PETER K., M.D.,Ch.B., (Moukden Med. Col.)
Research Professor Emeritus/Gainesville

RACKSTEIN, ANDREW D., M.D., (Chicago Med. Sch.)
Clinical Assistant Professor/Clearwater

RILEY, JOSEPH L., M.D., (Loma Linda Univ.)
Clinical Instructor/Orlando

SEAGER, ORIN A., M.D., (Univ. of Penn.)
Clinical Assistant Professor/Gainesville

SKORA, IRENA A., M.D., (Jagiellonski Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

TETLOW, ALAN G., M.D., (Univ. of Manchester)
Clinical Assistant Professor/Gainesville

TUAZON, JAIME G., M.D., (Univ. of Santo Thomas)
Clinical Assistant Professor/Orlando

## BIOCHEMISTRY AND MOLECULAR BIOLOGY

* ALLEN, CHARLES M., JR., Ph.D., (Brandeis University)
Professor
* BOYCE, RICHARD P., Ph.D. (Yale University)
Professor
* CHUN, PAUL W., Ph.D. (University of Missouri)
Professor
* COHEN, ROBERT J., Ph.D., (Yale University)
Associate Professor
* DUNN, BEN M., Ph.D., (University of California)
Assistant Professor
* FRIED, MELVIN, Ph.D., (Yale University)
Professor and Assistant Dean for
Graduate Medical Education

HORST, MICHAEL N.,Ph.D., (Florida State University)
Visiting Assistant Professor
* LAIPIS, PHILIP J., Ph.D., (Stanford University)
Assistant Professor
* MANS, RUSTY J., Ph.D., (University of Florida)
Professor
* McGUIRE, PETER M., Ph.D., (University of N. C.)
Assistant Professor
* NOONAN, KENNETH D., Ph.D., (Princeton University)
Associate Professor
* O'BRIEN, THOMAS W., Ph.D., (Marquette University)
Professor
* REMSEN, JOYCE F., Ph.D., (Rutgers State University)
Assistant Research Scientist
* ROBERTS, R. MICHAEL, Ph.D., (Oxford University)
Professor
* STEIN, GARY S., Ph.D., (University of Vermont)
Professor
* YOUNG, MICHAEL, M.D., (Duke University)
Professor and Chairman

**Volunteer Faculty**

FELDHERR, CARL M., Ph.D., (University of Pennsylvania)
Associate Professor of Anatomy and Biochemistry

FISHER, WALDO R., M.D., Ph.D., (Univ. of Pennsylvania)
Professor of Medicine and Biochemistry

GABBAY, EDMOND, Ph.D., (Columbia University)
Professor of Chemistry and Biochemistry

SILVERMAN, DAVID N., Ph.D., (Columbia University)
Associate Professor of
Pharmacology and Therapeutics and Biochemistry

STEIN, JANET, Ph.D., (Princeton University)
Assistant Professor of
Immunology and Medical Microbiology and Biochemistry

STEVENS, ANN, Ph.D., (University of Colorado)
Associate Professor/VAH and Biochemistry

## COMMUNITY HEALTH AND FAMILY MEDICINE

ARIET, MARIO, Ph.D., (University of Florida)
Professor and Professor in
Industrial Systems Engineering

BOOTH, HUMPHREY C., M.D., (University of London)
Assistant Professor

CARSON, RONALD A., Ph.D., (University of Glasgow)
Associate Profesor and Affiliate Associate Professor

COBLE, YANK DAVID, JR., M.D., (Duke University)
Professor and Chairman

COGGINS, WILMER J., M.D., (Duke University)
Professor and Division Chief, Rural Health

CRANDALL, LEE, Ph.D., (Purdue University)
Assistant Professor and
Joint Assistant Professor in Sociology

CURRY, ROBERT W., JR., M.D., (Duke University)
Associate Professor and Unit Director,
Division of Family Practice

DALLMAN, JOHN J., M.D., (Medical College of Georgia)
Assistant Professor and Assistant Director,
Family Practice Division

FOODYM, DARALYN J., Ph.D., (University of California)
Assistant Professor, Division of Social Sciences and Humanities and Affiliate Assistant Professor, Anthropology

GREEN, J. RUSSELL, JR., M.D., (Univ. of Virginia)
Professor; Joint Professor, Department of Medicine

JERNIGAN, JAMES A., M.D., (Washington University)
Assistant Professor

KILPATRICK, KERRY E., Ph.D., (Univ. of Michigan)
Professor; Joint Professor, Industrial Systems Engineering and Health and Hospital Administration;
Affiliate Professor, Basic Dental Sciences

KONOPA, JAMES E., B.S., (Florida International Univ.)
Instructor; Associate Director, Physician's Assistant Training Program

KRISCHER, JEFFREY P., Ph.D., (Harvard University)
Associate Professor; VAH Affiliate Associate Professor;
Joint Associate Professor, Industrial Systems Engineering

KUSHINS, PHYLLIS F., M.D., (University of Miami)
Assistant Professor

LEWIS, DAVID E., Ed.D., (Duke University)
Assistant Professor;
Director, Physician's Assistant Training Program

MARCH, ALLAN C., M.D., (Johns Hopkins)
Assistant Professor and Medical Director, Division of Rural Health, Cross City

MEDLEY, EVAN SCOTT, M.D., (Univ. of Kentucky)
Assistant Professor and Director,
Family Practice Residency Program

ORLANDO, JACQUELINE, Ph.D., (University of Florida)
Assistant Research Scientist,
Division of Family Practice

PETERSON, SANDRA M., M.S.W., (Boston University)
Assistant Research Scientist,
Division of Family Practice

PLYLER, CRANFORD O., M.D., (George Washington Univ.)
Associate Professor;
Director, Division of Family Practice/JHEP

SAVITT, TODD LEE, Ph.D., (University of Virginia)
Assistant Professor and Affiliate Assistant Professor, Social Sciences and Humanities

SCHULKIND, MARTIN L., M.D., (Chicago Medical School)
Associate Professor; Joint Associate Professor, Department of Pediatrics

SILVERSTEIN, JANET L., M.D., (Univ. of Pennsylvania)
Instructor, Division of Family Practice;
Joint Instructor, Department of Pediatrics

**Volunteer/Preceptor Faculty**

Preceptors provide students an exposure to private practice within the community.

ABEL, MARLING L., M.D., (Ohio State University)
Preceptor/Cocoa Beach

ALFORD, SAMUEL J., JR., M.D., (Loma Linda Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

ALLENDE, NICHOLAS, M.D., (University of Chile)
Clinical Assistant Professor/JHEP/Jacksonville

ALSUP, FRED W., M.D., (Howard University)
Preceptor/St. Petersburg

ALTERKRUSE, JOAN M., M.D., M.P.H., (Stanford U.)
Preceptor/Crestview

ANDERSON, G.A., M.D., (Bowman Gray)
Preceptor/Jacksonville

ANDREWS, FREDERICK C., M.D., (Tufts University)
Preceptor/Mt, Dora

APPEN, RAYMOND C., M.D., (Duke University)
Preceptor/Cocoa

ASHLEY, ROBERT G., M.D., (University of Florida)
Univ. Physician, Chief of Clinical Service
Assistant Professor

BANKS, CULLEN W., M.D., (Howard University)
Preceptor/Gainesville

BARROW, GEORGE W., JR., M.D., (Emory University)
Preceptor/Crestview

BASS, LEONARD C., M.D., (Meharry Med. College)
Preceptor/Ft. Lauderdale

BAZ, RICHARD, M.D., (American Univ. of Beirut)
Clinical Assistant Professor/VAH/Gainesville

BERMAN, DONALD A., M.D., (Tulane University)
Preceptor/Hollywood

BLACK, CURTIS J., M.D. (University of Minnesota)
Preceptor/Dunedin

BLACKBURN, JOHN, M.D., (Bowman Gray)
Preceptor/Melbourne

BOMHARD, JAMES S., M.D., (Tulane University)
Preceptor/Jacksonville

BOORAS, WILLIAM P., M.D., (University of Miami)
Preceptor/Jacksonville

BOYNTON, BRUCE, M.D., (University of Minnesota)
Preceptor/Naples

BOYSEN, BETTE F., M.D., (Loyola University)
University Physician, Chief of Clinical Services,
Student Health Services and
Joint Assistant Professor

BRASHEAR, BILLY, M.D., (University of Louisville)
Preceptor/Gainesville

BRAUN, WILLIAM E., M.D., (University of Florida)
Preceptor/Winter Park

BRELAND, JABE A. M.D., (L. S. U.)
Preceptor/Marianna

BROOKS, HERBERT E., M.D., (Univ. of Maryland)
Preceptor/Bonifay

BURKE, CHARLES H., M.D., (Emory University)
Clinical Assistant Professor/JHEP/Jacksonville

BUTSCHER, WILLIAM C., JR., M.D. (Jefferson)
Preceptor/Ocala

CAMPBELL, RICHARD K., M.D., (Tulane)
Preceptor/Miami

CARTER, HARVEY, M.D., (Medical Col. of Georgia)
Preceptor/Clearwater

CHODOSH, LANCE, M.D., (Georgetown)
Preceptor/Gainesville

COLE, BEN M., M.D., (Medical College of S. C.)
Preceptor/Orlando

COLLANTE, ERLINDA Y., M.D., (Far East University)
University Physician and Affiliate Instructor

COLLETTE, JOHN W., M.D., (Emory University)
Preceptor/DeLand

CONRAD, RICHARD, M.D., (University of Florida)
Preceptor/Bradenton

COOKE, STANFORD, M.D., (Hahnemann)
Preceptor/Miami

COOPER, GARY C., M.D., (Tulane University)
Clinical Assistant Professor/AGH/Gainesville

COVELLI, JOSEPH L., M.D., (SUNY Downstate)
Preceptor/Orange County

COX, J. MARK, M.D., (Loma Linda University)
Preceptor/Orlando

CRANKSHAW, WILLIAM E., M.D., (University of Miami)
Preceptor/Arcadia

CROW, C. ROBERT, M.D., (Emory University)
Preceptor/Mt. Dora

CULLINS, EARL T., M.D., (Meharry Med. Col.)
Preceptor/Jacksonville

DAILEY, JAMES O., M.D. (University of Miami)
Preceptor/Williston

DAMSEY, LLOYD, M.D., (SUNY at Buffalo)
Preceptor/Marathon

DEAL, WILLIAM B., M.D., (Univ. of North Carolina)
Professor, Dean, College of Medicine
Vice President for Health Affairs

DEAN, JOHN M., M.D., (Jefferson)
Preceptor/Holmes Beach

DELGADO, ARMANDO, M.D., (University of Tennessee)
Preceptor/Rockledge

DESKY, MICHAEL, M.D., (University of Miami)
Preceptor/Hollywood

DICKEY, JAMES W., M.D., (Duke University)
Preceptor/Ft. Lauderdale

DODGE, R. EDWARD, JR., M.D., (Indiana University)
Preceptor/Inverness

DONOVAN, DANIEL, M.D., (Loyola University)
Preceptor/Melbourne

DRAPER, ARTHUR D., M.D., (Emory University)
Clinical Instructor/JHEP/Jacksonville

EISSMAN, ROBERT C., M.D., (Indiana University)
Preceptor/Lakeland

ELMER, WILLIAM J., M.D., (University of Miami)
Preceptor/Leesburg

ERICKSON, ROBERT A., M.D., (University of Florida)
University Physician and Affiliate Instructor

ESTRADA, ROBERT, M.D., (University of Havana)
Preceptor/Tampa

EVANS, WILLIAM C., JR., M.D., (Duke University)
Preceptor/Gainesville

FAIN, NORMAN F., JR., M.D., (Med. Col. of Alabama)
Preceptor/Melbourne

FARQUHAR, JOHN S., JR., M.D., (Indiana University)
Assistant Professor/JHEP/Jacksonville

FERRY, SENECA T., M.D., (University of Missouri)
Preceptor/Lehigh Acres

FISCHER, LEE A., M.D., (University of Illinois)
Preceptor/West Palm Beach

FURLOW, LEONARD T., JR., M.D., (Washington Univ.)
Preceptor/Gainesville

GAUDRY, CHARLES L., JR., M.D.
Clinical Associate Professor/JHEP/Jacksonville

GETMAN, THOMAS A., M.D., (University of Vermont)
Clinical Assistant Professor/JHEP/Jacksonville

GLENN, JOHNNY R., M.D., (Med. Col. of Georgia)
Clinical Assistant Professor/JHEP/Jacksonville

GOFF, R. DALEY, JR., M.D., (University of North Carolina)
Preceptor/Jacksonville

GRIER, ARNOLD, M.D., (Chicago University)
Preceptor/Tampa

GROGAN, ROBERT F., M.D., (University of Louisville)
Preceptor/Tequesta

HALABIS, STEPHEN S., M.D.,
(Marie Curie Univ. Lublin, Poland)
Preceptor/Sanibel

HANDWERKER, JOHN V., JR., M.D., (Univ. of Tennessee)
Preceptor/Key Biscayne

HARDGRAVE, NEWT L., M.D., (Oklahoma University)
Preceptor/Clearwater

HARPER, JOSEPH M., JR. M.D., (University of Florida)
Preceptor/Ft. Walton Beach

HALSAM, ERNEST G., M.D., (University of Florida)
Preceptor/Panama City Beach

HAUPT, RONALD A., M.D., (Loma Linda University)
Clinical Assistant Professor/JHEP/Jacksonville

HAYNES, RONALD, M.D., (University of Miami)
Preceptor/Dunedin

HAZEN, STEVEN J., M.D., (University of Miami)
Clinical Assistant Professor/JHEP/Jacksonville

HENDRIX, JOSEPH P., M.D., (Emory University)
Preceptor/Port St. Joe

HILL, H. DONALD, M.D., (University of Virginia)
Preceptor/Ft. Lauderdale

HILL, JOSEPH, M.D., (University of Miami)
Preceptor/Vero Beach

HOFFMAN, CRAIG B., M.D., (Indiana University)
Preceptor/Palmetto

HOGUE, ROBERT J., M.D., (University of Oklahoma)
Clinical Assistant Professor/Gainesville

HOLLAND, JOSEPH E., M.D., (University of Miami)
Preceptor/Leesburg

HOUSE, E.K., M.D., (University of Florida)
Preceptor/Brooksville

IKELER, GEORGE R., M.D., (University of Florida)
Preceptor/Clearwater

JOHNSON, STANLEY, M.D., (Meharry Med. College)
Preceptor/Miami

JOHNSON, JAMES, M.D., (University of Miami)
Preceptor/West Palm Beach

JORDON, B.B., M.D., (University of Alabama)
Preceptor/Gulf Breeze

KATZ, NEIL, M.D., (Faculty of Med., Montpellier France)
Preceptor/Coral Springs

KIEHL, KENNETH C., M.D., (University of Miami)
Preceptor/Sarasota

KIMMEL, BERNARD, M.D., (University of Michigan)
Preceptor/West Palm Beach

KOKOMOOR, MARVIN L., M.D., (University of Michigan)
Preceptor/Gainesville

KOON, WILEY E., M.D., (University of Florida)
Preceptor/Winter Haven

KRATINA, FREDERICK K., M.D., (Med. Col. of Georgia)
Clinical Assistant Professor/Gainesville

KRULL, DAVID J., M.D., (Indiana University)
Preceptor/Palmetto

KUPSINEL, ROY, M.D., (University of Miami)
Preceptor/Maitland

LARUE, RAYMOND A., M.D., (Albany Med. Col.)
Preceptor/Winter Haven

LEHRER, DAVID R., M.D., (Ohio State University)
Preceptor/Clermont

LERNER, BARRY, M.D., (University of Rome, Italy)
Preceptor/West Palm Beach

LIPPMANN, NERVIN ROBERT, D.O.
(Chicago Col. of Osteopathy)
Preceptor/Sarasota

LITTLE, GEORGE, M.D., (University of Florida)
Preceptor/Gainesville

LLINAS, JOSE L., M.D., (Havana University)
Clinical Associate Professor

LOUTTIT, JAMES W., M.D., (University of Tennessee)
Preceptor/Orange County

LOWENTHAL, JOSEPH J., M.D., (University of Penn.)
Preceptor/Jacksonville

LYNCH, WILLIAM J., M.D., (Ohio State University)
Clinical Assistant Professor/JHEP/Jacksonville

MALLETTE, WILLIAM F., M.D., (St. Louis University)
Preceptor/St. Petersburg

MALONE, JOHN M., M.D., (Emory University)
Clinical Assistant Professor/Green Cove Springs

MARLOWE, JAMES M., M.D., (University of Miami)
Preceptor/New Port Richey

MARTIN, CALVIN W., M.D., (University of Tennessee)
Preceptor/Arcadia

MASE, DARREL J., Ph.D., (Columbia University)
Professor, Dean Emeritus
Professor of Health Related Professions

McCLOW, MARVIN V., M.D., (State U. of Iowa)
Clinical Assistant Professor/JHEP/Jacksonville

McCOY, DONALD L., M.D., (University of Kansas)
Preceptor/Williston

McDONALD, IAN, M.D., (Tufts)
Preceptor/Orlando

McGIBONY, JAMES D., M.D., (Emory University)
Clinical Associate Professor/JHEP/Jacksonville

McNAUGHTON, THOMAS M., M.D., (Indiana Univ.)
Preceptor/Lakeland

MOORE, LEWIS, M.D., (University of Zurich)
Preceptor/Naples

MORGAN, JAMES D., M.D., (Med. College of S.C.)
Preceptor/Winter Haven

MORGAN, MICHAEL G., M.D., (University of Tennessee)
Preceptor/Lehigh Acres

MORRIS, WALTER E., JR., M.D., (Univ. of Alabama)
Preceptor/Jacksonville

MORRISON, GARY, M.D., (Tulane University)
Clinical Instructor/JHEP/Jacksonville

MUMMERY, CHARLES R., M.D., (Temple University)
Preceptor/Miami

NIKOLAUS, DONALD G., M.D., (Ohio State)
Preceptor/Dunedin

NEWMAN, BENJAMIN G., M.D., (Univ. of Cincinnati)
Preceptor/Altamonte Springs

NITZKIN, JOEL B., M.D., (Wayne State University)
Preceptor/Miami

O'BRIEN, F. KEVIN, M.D., (Tulane University)
Preceptor/Riviera Beach

OLSEN, JULIAN O., JR., M.D., (Tulane University)
Preceptor/Gulf Breeze

OPER, ARNOLD, M.D., (State Univ. of N.Y., Bronx)
Preceptor/Opa Locka

OSTLING, B.C., M.D., (University of Michigan)
Preceptor/Avon Park

OTT, FRANKLIN B., M.D., (Loyola University)
Preceptor/Pompano Beach

PADGETT, GLENN E., M.D., (George Wash. University)
Preceptor/Marianna

PERCHALSKI, JOHN E., M.D., (University of Florida)
Preceptor/Temple Terrace

PICHLER, FLOYD L., M.D., (Loma Linda Univ.)
Clinical Instructor/JHEP/Jacksonville

POLITO, JAMES J., M.D., (New York University)
Preceptor/Pompano Beach

PRATT, DANIEL, M.D., (Johns Hopkins)
Preceptor/Tampa

PRINCE, JOHN T., M.D., (Ohio State University)
Preceptor/Tequesta

PROBERT, WALTER, J.S.D., (Yale University)
Professor (Law and Medicine)

RAFOOL, GORDON J., M.D., (Med. Col. of Georgia)
Preceptor/Winter Haven

RAITZ, RAYMOND, M.D., (Ohio State University)
Preceptor/Palmetto

REDDICK, HILLIARD R., M.D., (Temple University)
Preceptor/Quincy

REIN, HARRY, M.D., (State University of N.Y.)
Preceptor/Orlando

REGALADO, MANUEL F., M.D., (Univ. of Havana)
University Physician and Affiliate Assoc. Professor

RICHMAN, WILLIAM, M.D., (Temple University)
Preceptor/Hollywood

ROBINSON, DAN, Pharm.D., (Univ. of Cincinnati)
Assistant Professor, Pharmacy
Assistant Professor, Community Health and Family Medicine

ROBINSON, JERRY M., M.D., (Emory University)
Preceptor/Deltona

ROBINSON, NEAL A., M.D., (University of Arkansas)
Preceptor/Eustis

ROEVER, FREDERICK H., M.D., (Hahnemann)
Preceptor/New Port Richey

ROGERS, D.R., M.D., (Medical College of Virginia)
Preceptor/Tavernier

ROSENBLUM, ROBERT, M.D., (Middlesex University)
Preceptor/Miami Beach

SALTZMAN, EDWARD J., M.D., (Jefferson Med. Col.)
Preceptor/Hollywood

SANDERS, GEORGE L., M.D., (University of Miami)
Preceptor/Miami

SCHULZ, RICHARD H. and SARAH M., M.D., (Emory)
Preceptor/Marianna

SEAY, MARY E., M.D., (University of Florida)
Preceptor/Tallahassee

SEIFER, ALAN, M.D., (University of Nebraska)
Preceptor/Miami

SELANDER, GUY T., M.D., (Seton Hall Col. of Med.)
Clinical Instructor/JHEP/Jacksonville

SEWELL, JESSE Q., III, M.D., (Tulane University)
Preceptor/Marathon

SEYMOUR, CHARLES F., M.D., (Duke University)
Preceptor/Ft. Lauderdale

SHEPPARD, JAMES C., M.D., (University of Alabama)
Preceptor/Ft. Walton Beach

SHUPI, M.W., M.D. (University of Oklahoma)
Preceptor/Mendry

SILBERMAN, HAROLD, M.D., (Johns Hopkins)
Preceptor/Coral Gables

SIMPSON, SHIRLEY, M.D., (University of Florida)
Preceptor/Port St. Joe

SKINNER, RICHARD G., JR., M.D., (Emory)
Preceptor/Jacksonville

SMITH, FRED A., M.D., (Meharry Med. Col.)
Preceptor/Tampa

SMITH, QUENTIN, M.P.H., (University of Michigan)
Professor Community Dentistry

SMOLEY, MELVIN, M.D., (University of Chicago)
Preceptor/Sunrise

SMOUSE, WILLIAM R., M.D., (Med. Col. of Va.)
Preceptor/Ft. Lauderdale

SNODGRASS, RICHARD W., M.D., (Univ. of Rochester)
Preceptor/Daytona Beach

SOURBEER, JOHN N., M.D., (Jefferson Med. Col.)
Preceptor/Bellair Bluffs

STALLER, SHELDON, M.D., (Jefferson Med. Col.)
Preceptor/North Miami

STEELE, HUGH G., M.D., (Tulane University)
Preceptor/Ft. Lauderdale

STEIN, GERALD, M.D., (University of Pennsylvania)
Assistant Professor

STERN, JOSEPH K., M.D., (Wayne State University)
Preceptor/Plantation

STINSON, DANIEL T., M.D., (University of Zurich)
Clinical Assistant Professor/JHEP/Jacksonville

STONE, MELVIN M., M.D., (New York University)
Preceptor/Hollywood

SULLIVAN, JOHN E., M.D., (Creighton University)
Preceptor/Sarasota

SUSSMAN, HOWARD F., M.D., (University of Miami)
Preceptor/North Miami

SYFERT, DALE F., M.D., (University of Florida)
Preceptor/Haines City

TALLEY, ROBERT G., M.D., (University of Tennessee)
Preceptor/Ft. Lauderdale

TAWIL, ALBERT, M.D., (Jefferson Med. Col.)
Preceptor/Tampa

THAMES, THOMAS B., M.D., (Duke University)
Preceptor/Orlando

THORNTON, FRANK J., JR., M.D., (Emory University)
Preceptor/Haines City

TRUMP, RICHARD C., M.D., (Ohio State University)
Preceptor/Madeira Beach

ULSETH, ROBERT, M.D., (University of Illinois)
Preceptor/Lake Worth

VANSICKLE, CHRIS, M.D., (Michigan State Univ.)
Preceptor/Tallahassee

VANZANT, BARNIE L., JR., M.D., (Emory Univ.)
Preceptor/Lake City

VON THRON, JOSEPH, M.D., (Ohio State Univ.)
Preceptor/Cocoa Beach

WALKER, JAMES W., M.D., (University of Tennessee)
Preceptor/Jacksonville

WALKER, HARRY, M.D., (Temple University)
Clinical Assistant Professor/Gainesville

WARREN, DONALD E., M.D., (Duke University)
Preceptor/West Palm Beach

WEAVER, THOMAS D., M.D., (Med. Col. of Georgia)
Preceptor/Clermont

WEGRYN, STANLEY W., M.D., (N. Y. Med. College)
Preceptor/Sanibel

WELLS, DONN, M.D., (University of N. C.)
Preceptor/Pompano Beach

WHITE, DAVID C., M.D., (Tufts University)
Clinical Professor/Tallahassee

WHITE, ELGA B., M.D., (University of Miami)
Preceptor/Blountstown

WILLIAM, JAY D., M.D., (Emory University)
Preceptor/Pensacola

ZAVELSON, THOMAS M., M.D., (Duke University)
Preceptor/Gainesville

ZIFFER, ALBERT M., M.D., (New York University)
Preceptor/Altamonte Springs

ZIPSER, LESTER L., M.D., (Ohio State)
Preceptor/Tampa

## IMMUNOLOGY AND MEDICAL MICROBIOLOGY

* BERNS, KENNETH I., M.D., Ph.D., (Johns Hopkins)
Professor and Chairman
* CLEM, L. WILLIAM, Ph.D., (University of Miami)
Professor
* CRANDALL, RICHARD B., Ph.D., (Purdue University)
Professor
* DUCKWORTH, DONNA H., Ph.D., (Johns Hopkins)
Associate Professor
* FLANEGAN, JAMES B., Ph.D., (University of Michigan)
Assistant Professor
* GIFFORD, GEORGE E., Ph.D., (Univ. of Minnesota)
Professor
* HAUSWIRTH, WILLIAM W., Ph.D., (Oregon State U.)
Assistant Professor
* HOLLOMAN, WILLIAM K., Ph.D., (Univ. of California)
Assistant Professor
* MUZYCZKA, NICHOLAS, Ph.D., (Johns Hopkins)
Assistant Professor
* SMALL, PARKER A., JR., M.D., (Univ. of Cincinnati)
Professor
* STEIN, JANET L., Ph.D., (Princeton University)
Assistant Professor

## MEDICINE

### General Medicine and Community Programs

ALLEN, DON L., D.D.S., (University of North Carolina)
Professor; Professor and Dean of Dentistry

BROZYNA, GERALD A., M.D., (Nat'l. U. of Mexico City)
Assistant Professor

CARANASOS, GEORGE J., M.D., (Johns Hopkins)
Professor and Chief, and Professor in
Community Health and Family Medicine

CORMAN, LOURDES C., M.D., (Woman's Med. Col. of Penn.)
Assistant Professor

EIG, MARK H., M.D., (Georgetown University)
Chief Resident and Instructor/VAH

FLETCHER, JUANITA, M.D., (Howard University)
Instructor/JHEP/Jacksonville

HEADLEY, ELWOOD J., M.D., (Vanderbilt University)
Assistant Professor and Associate Chief of Staff
for Ambulatory Medicine/VAH

HILL, RICHARD K., M.D., (Johns Hopkins)
Assistant Professor

JUSTUS, PETER G., M.D., (University of Washington)
Chief Resident and Instructor

MARSTON, ROBERT Q., M.D., (Med. Col. of Virginia)
Professor and President of University

* McGUIGAN, JAMES E., M.D., (St. Louis University)
Professor and Chairman, Department of Medicine

MORELAND, ALVIN F., D.V.M., (University of Georgia)
Professor and Professor in Comparative Medicine.

PETERS, WAYNE L., M.D., (University of Colorado)
Assistant Professor/JHEP/Jacksonville

WEBB, CHARLES H., M.D., (Ohio State University)
Assistant Professor

**Volunteer Faculty**

ANELLO, JOSEPH P., JR., M.D., (Univ. of Padua, Italy)
Clinical Instructor/JHEP/Jacksonville

ANDERSON, RICHARD M., M.D., (Emory University)
Clinical Instructor/Gainesville

BRASHEAR, BILLY, M.D., (Univ. of Louisville)
Clinical Instructor/Gainesville

COLLINS, ROBERT D., M.D., (New York Med. Col.)
Clinical Associate Professor/PEP/Pensacola

CRAGO, JOHN A., M.D., (Cornell University)
Clinical Instructor/Gainesville

DAWKINS, WILBERT L., SR., M.D., (Meharry Med. Col.)
Clinical Assistant Professor/JHEP/Jacksonville

DOFF, SIMON D., M.D., (Long Island Col. of Med.)
Clinical Professor/JHEP/Jacksonville

EBBINGHOUSE, JOE C., M.D., (Indiana University)
Clinical Associate Professor/JHEP/Jacksonville

EMMEL, G. LEONARD, M.D., (Univ. of Penn.)
Clinical Instructor/Gainesville

GILLESPIE, ROBERT R., JR., M.D., (Tulane University)
Clinical Assistant Professor/JHEP/Jacksonville

GROOVER, MARSHALL E., M.D., (Univ. of Georgia)
Clinical Associate Professor/JHEP/Jacksonville

HARRISON, I. BARNETT, M.D., (Emory Univ.)
Clinical Assistant Professor/Tallahassee

LEE, HARRY G., M.D., (Cornell University)
Clinical Assistant Professor/JHEP/Jacksonville

MENGEL, MARVIN C., M.D., (Johns Hopkins)
Clinical Assistant Professor/Orlando

MORROW, MATTHEW E., M.D., (Temple University)
Clinical Assistant Professor/JHEP/Jacksonville

MONSOUR, FARIS S., JR., M.D., (Georgetown Univ.)
Clinical Associate Professor/JHEP/Jacksonville

STRACHAN, JAMES B., M.D., (Washington Univ.)
Clinical Professor/JHEP/Jacksonville

WEBB, MICHAEL J., M.D., (University of Miami)
Clinical Instructor

WEIGEL, WALTER W., M.D., (Emory University)
Clinical Instructor/Palatka

YOFFEE, HARRY F., M.D., (Tulane Medical School)
Clinical Assistant Professor/JHEP/Jacksonville

YOUNG, MARTIN D., M.D., (Johns Hopkins)
Adjunct Research Professor/Gainesville

## Allergy Rheumatology

LONGLEY, SELDEN, III, M.D., (Vanderbilt Univ.)
Assistant Professor

* PANUSH, RICHARD S., M.D., (Univ. of Michigan)
Associate Professor and Chief, and Associate Professor in Immunology and Medical Microbiology

* STEIN, GERALD H., M.D., (Univ. of Penn.)
Assistant Professor; Assistant Professor in Community Health and Family Medicine; Assistant Professor in Nursing; and in Psychology

**Volunteer Faculty**

CALDWELL, JACQUES R., M.D., (Johns Hopkins)
Clinical Associate Professor/Gainesville

GARTEN, LEONARD, M.D., (Med. College of Georgia)
Clinical Assistant Professor/JHEP/Jacksonville

KOHEN, MICHAEL D., M.D., (Univ. of Florida)
Clinical Assistant Professor/Daytona Beach

LLOYD, T. MARK, M.D., (University of Florida)
Clinical Assistant Professor

MASS, MYRON F., M.D., (Univeristy of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

NEWMAN, MELVIN, M.D., (Boston University)
Clinical Assistant Professor/JHEP/Jacksonville

SALES, LOUIS M., M.D., (Boston University)
Clinical Professor/JHEP/Jacksonville

STORCH, SIDNEY, M.D., (University of Brussels)
Clinical Associate Professor/JHEP/Jacksonville

## Cardiology

ARIET, MARIO, Ph.D., (University of Florida)
Joint Professor

BUSS, DARYL D., D.V.M., Ph.D., (Univ. of Wis.)
Associate Professor and
Associate Professor in Veterinary Medicine

CHRISTIE, LEONARD G., M.D., (Temple University)
Associate Professor

CONETTA, DONALD A., M.D., (Duke University)
Instructor

CONTI, C. RICHARD, M.D., (John Hopkins)
Professor and Chief

CREVASSE, LAMAR E., JR., M.D., (Duke University)
Professor and Assistant Dean for
Continuing Medical Education

CURRY, R. CHARLES, M.D., (University of Florida)
Assistant Professor

FELDMAN, ROBERT L., M.D., (Rutgers University)
Assistant Professor

GEISER, EDWARD A., M.D., (University of Cincinnati)
Instructor

LOMBARD, CHRISTOPHE, D.V.M.,
(Univ. of Zurich, Switzerland)
Affiliate Assistant Professor

MEHTA, JAWAHAR, M.D., (Panjab University)
Assistant Professor

MILLER, ALAN B., M.D., (University of Florida)
Assistant Professor/JHEP/Jacksonville

* NICHOLS, WILMER W., Ph.D., (Univ. of Alabama)
Associate Professor and
Assistant Professor in Physiology

* PEPINE, CARL J., M.D., (New Jersey College of Med.)
Professor

TAYLOR, W. JAPE, M.D., (Harvard University)
Distinguished Service Professor and
Professor in Veterinary Medicine

**Volunteer Faculty**

ADAMS, LESLIE R., M.D., (Univ. of Penn.)
Clinical Associate Professor/JHEP/Jacksonville

ANDERSON, GEORGE A., M.D., (Bowman Gray)
Clinical Associate Professor/JHEP/Jacksonville

ANDREWS, JOHN W., M.D., (Emory University)
Clinical Instructor/Gainesville

BAKER, ROY M., M.D., (Emory University)
Clinical Professor/JHEP/Jacksonville

BIRCH, LARRY, M.D., (University of Michigan)
Clinical Assistant Professor/JHEP/Jacksonville

BURNS, MARSHALL A., M.D., (Tulane Univ.)
Clinical Associate Professor/JHEP/Jacksonville

CHINOY, DAVID A., M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

DACE, MELVIN C., M.D., (Washington University)
Clinical Instructor/Gainesville

DE LA TORRE, ANGEL, M.D., (University of Havana)
Clinical Associate Professor/JHEP/Jacksonville

EL SHAHAWY, MAHFOUZ, M.D., (Vienna Med. Sch.)
Clinical Assistant Professor/Sarasota

FARIS, WILLIAM E., M.D., (Tulane University)
Clinical Associate Professor/JHEP/Jacksonville

FLEMING, JACK W., M.D., (Emory University)
Clinical Associate Professor/Pensacola

FULLER, EARL W., JR., M.D., (Med. Col. of Virginia)
Clinical Assistant Professor/JHEP/Jacksonville

GILMOUR, KAY E., M.D., (University of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

GUY, CLIFFORD R., M.D., (N. J. College of Med.)
Clinical Associate Professor/JHEP/Jacksonville

HANSON, KARL B., M.D., (Univ. of Chicago)
Clinical Professor/JHEP/Jacksonville

HARTMANN, KAMILLO F., M.D., (Olomouc, Czech.)
Clinical Assistant Professor/JHEP/Jacksonville

IRA, GORDON H., JR., M.D., (Duke University)
Clinical Associate Professor/JHEP/Jacksonville

JACOBS, DANIEL M., M.D., (Duke University)
Clinical Assistant Professor/JHEP/Jacksonville

KANTER, LAWRENCE J., M.D., (Case Western Reserve)
Clinical Assistant Professor/JHEP/Jacksonville

LOHRBAUER, LEIF A., M.D., (Duke University)
Clinical Assistant Professor/JHEP/Jacksonville

MADISON, WILLIAM M., JR., M.D., (Emory University)
Clinical Associate Professor/JHEP/Jacksonville

McCALLISTER, ARCHIE, M.D., (Emory University)
Clinical Associate Professor/Stuart

McCULLAGH, JAMES M., M.D., (Emory Univ.)
Clinical Instructor/JHEP/Jacksonville

McCULLAGH, WILLIAM H., JR., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

McINTOSH, HENRY D., M.D., (Univ. of Pennsylvania)
Clinical Professor/Lakeland

MINER, JAMES A., M.D., (Indiana School of Med.)
Clinical Assistant Professor/JHEP/Jacksonville

MONTGOMERY, JAMES A., M.D., (Tulane University)
Clinical Assistant Professor/JHEP/Jacksonville

MYERS, JAMES W., M.D., (Ohio State University)
Clinical Assistant Professor/JHEP/Jacksonville

OLLIFF, BENJAMIN C., M.D., (Med. Col. of Georgia)
Clinical Assistant Professor/JHEP/Jacksonville

PAGE, E. EUGENE, JR., M.D., (Johns Hopkins)
Clinical Associate Professor/JHEP/Jacksonville

PEELER, ROBERT G., M.D., (Johns Hopkins)
Clinical Assistant Professor/JHEP/Jacksonville

PEKAAR, ROBERT L., M.D., (N. J. College of Medicine)
Clinical Assistant Professor/JHEP/Jacksonville

SCHANG, STEVEN J., JR., M.D., (Univ. of Florida)
Clinical Assistant Professor/Pensacola

SCHNEIDER, IRVIN C., M.D., (Tulane University)
Clinical Associate Professor/JHEP/Jacksonville

SCHONBERG, ALLAN, M.D., (George Washington Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

SOLER, RAUL, M.D., (University of Havana)
Clinical Assistant Professor/JHEP/Jacksonville

SILVERSTEIN, BURTON V., M.D., (Univ. of Penn.)
Clinical Assistant Professor/Gainesville

STORCH, HENRY D., M.D., (Tulane University)
Clinical Instructor/JHEP/Jacksonville

VAN CLEVE, ROBERT B., M.D., (Columbia Univ.)
Clinical Professor/JHEP/Jacksonville

WILLIAMS, J. CURTIS, JR., M.D., (Bowman Gray)
Clinical Assistant Professor/Pensacola

## Dermatology

CHILDERS, RICHARD C., M.D., (Univ. of Rochester)
Assistant Professor/Gainesville

CULLEN, STANLEY I., M.D., (University of Miami)
Associate Professor/Gainesville

TOMECKI, KENNETH J., M.D.,
(Columbia Col. of Physicians & Surgeons)
Assistant Professor

**Volunteer Faculty**

SOMPAYRAC, LAUREN M., M.D., (Univ. of Penn.)
Clinical Professor/JHEP/Jacksonville

WILKERSON, RUTH C., M.D., (Med. Col. of Virginia)
Clinical Instructor/Gainesville

## Endocrinology and Metabolism

* FISHER, WALDO R., M.D., Ph.D., (Univ. of Penn.)
Associate Professor and
Associate Professor in Biochemistry

* FREUND, GERHARD, M.D., (Goethe University)
Professor and Professor in Neuroscience

MERIMEE, THOMAS J., M.D., (University of Louisville)
Professor and Chief

MISBIN, ROBERT I., M.D., (Johns Hopkins)
Assistant Professor

ROQUE, JUAN L., M.D., (University of Seville)
Assistant Professor/JHEP/Jacksonville

THOMAS, WILLIAM C., JR., M.D., (Cornell University)
Professor, Associate Chief of Staff for Research/VA

**Volunteer Faculty**

BUCHER, ROBERT L., M.D., (Univ. of Minnesota)
Clinical Assistant Professor/JHEP/Jacksonville

BURKE, HERBERT A., JR., M.D., (Vanderbilt Univ.)
Clinical Professor/JHEP/Jacksonville

COBLE, YANK D., JR., M.D., (Duke University)
Clinical Associate Professor/JHEP/Jacksonville

KNIZLEY, HOMER, JR., M.D., (Univ. of Florida)
Clinical Associate Professor/Gainesville

LONDONO, JAVIER H., M.D., (Univ. of Antioquia)
Clinical Assistant Professor/Gainesville

LOWENTHAL, JOSEPH J., M.D., (Univ. of Penn.)
Clinical Professor/JHEP/Jacksonville

MILLER, ROBERT, M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

MONTGOMERY, CHARLES T., M.D., (Univ. of Miami)
Clinical Associate Professor/JHEP/Jacksonville

PUESTOW, ERIC CHARLES, M.D., (Univ. of Wisconsin)
Clinical Instructor/JHEP/Jacksonville

OATES, THOMAS W., M.D., (Ohio State University)
Clinical Assistant Professor/Lakeland

SCHWALBE, FRANK C., JR., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

## Gastroenterology

BAIG, M. MANSOOR, Ph.D., (State Univ. of N. Y.)
Assistant Research Scientist

* CERDA, JAMES J., M.D., (University of Maryland)
Professor and Associate Chairman

* CORNELIUS, CHARLES E., D.V.M., Ph.D., (U. of Calif.)
Professor; Professor and Dean of Veterinary Medicine

GOLDBERG, LAWRENCE S., M.D.,
(N. Y. Univ. School of Med.)
Assistant Professor/JHEP/Jacksonville

HARTY, RICHARD F., M.D., (Georgetown University)
Assistant Professor

KING, CHARLES E., JR., M.D., (Bowman Gray)
Assistant Professor

KOLTS, BYRON E., M.D., (Univ. of Rochester)
Associate Professor

LEIBACH, JOHN R., M.D., (Ohio State University)
Assistant Professor

MATHIAS, JOHN R., M.D., (Temple University)
Associate Professor

McGUIGAN, JAMES E., M.D., (St. Louis Univ.)
Professor

TOSKES, PHILLIP P., M.D., (Univ. of Maryland)
Professor and Chief

**Volunteer Faculty**

BORLAND, JAMES L., JR., M.D., (Johns Hopkins)
Clinical Professor/JHEP/Jacksonville

BUELOW, ROBERT G., M.D., (Temple University)
Clinical Assistant Professor/JHEP/Jacksonville

DEFORD, JAMES W., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

DUFFY, A. PATRICK, M.D., (St. Louis University)
Clinical Instructor/JHEP/Jacksonville

GROOVER, JACK R., M.D., (University of Maryland)
Clinical Associate Professor/JHEP/Jacksonville

HANCOCK, W. ROY, M.D., (Med. Col. of Georgia)
Clinical Professor/JHEP/Jacksonville

KANNER, ROBERT S., M.D., (Creighton University)
Clinical Assistant Professor/JHEP/Jacksonville

KRAMER, DEAN C., M.D., (Univ. of Missouri)
Clinical Assistant Professor/Gainesville

MORRIS, WALTER E., JR., M.D., (Med. Col. of Ala.)
Clinical Assistant Professor/JHEP/Jacksonville

TEK, HONG TAING, M.D.,
(Univ. of Phnom-Penh, Cambodia)
Instructor/JHEP/Jacksonville

## Hematology

KEITT, ALAN S., M.D., (Harvard University)
Associate Professor and
Associate Professor in Pathology

KITCHENS, CRAIG S., M.D., (University of Florida)
Assistant Professor and
Assistant Professor in Pathology

NOYES, WARD D., M.D., (Univ. of Rochester)
Professor and Chief

STREIFF, RICHARD R., M.D., (University of Basel)
Professor and Chief of Medical Services/VAH

WHITTINGTON, RICHARD M., M.D., (Jefferson Med. Col.)
Professor and Assistant Dean/VAH

**Volunteer Faculty**

ABRAMSON, NEIL, M.D., (Albert Einstein Col. of Med.)
Clinical Professor/JHEP/Jacksonville

KEENE, WILLIS R., M.D., (Johns Hopkins)
Clinical Professor/Georgia

MOOMAW, DAVID R., M.D., (Northwestern Univ.)
Clinical Associate Professor/JHEP/Jacksonville

PAWLINGER, DAVID F., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

SHER, HARVEY B., M.D., (University of Florida)
Clinical Instructor/JHEP/Jacksonville

TROTTER, GEORGE S., M.D., (Univ. of Maryland)
Clinical Associate Professor/JHEP/Jacksonville

## Infectious Diseases

* DEAL, WILLIAM B., M.D., (Univ. of North Carolina)
Professor; Professor in Community Health and
Family Medicine;
Professor in Pharmacy; Dean and Vice President
for Health Affairs

FOSTER, MALCOLM T., M.D., (Bowman Gray)
Associate Professor and
Chairman of Medicine/JHEP/Jacksonville

MANSHEIM, BERNARD J., M.D., (Univ. of Wisconsin)
Assistant Professor

MARSTON, ROBERT Q., M.D., (Med. Col. of Virginia)
Professor of Medicine

MICHAEL, MAX, JR., M.D., (Harvard University)
Assistant Professor and Assistant Dean/JHEP/Jacksonville

* RAND, KENNETH H., M.D., (Stanford University)
Assistant Professor and Assistant Professor in
Immunology and Medical Microbiology

* SHANDS, JOSEPH W., JR., M.D., (Duke University)
Professor and Chief and Professor in
Immunology and Medical Microbiology

**Volunteer Faculty**

JURGENSEN, PAUL F., M.D., (St. Louis University)
Clinical Associate Professor/Georgia

SIEGER, BARRY E., M.D., (Boston Univ.)
Clinical Assistant Professor/Orlando

THORBURN, ROBERT, M.D., (University of Florida)
Clinical Assistant Professor/Gainesville

VANDEVELDE, ALEXANDER G., M.D.,
(U. of Louvain, Belgium)
Clinical Associate Professor/JHEP/Jacksonville

## Oncology

KRAMER, BARNETT S., M.D., (Univ. of Maryland)
Assistant Professor

ROSS, WARREN E., M.D., (University of Florida)
Assistant Professor

WEINER, ROY S., M.D., (SUNY Downstate)
Associate Professor and Chief, and Associate Professor
in Immunology and Medical Microbiology

**Volunteer Faculty**

CUSUMANO, CHARLES L., M.D., (Georgetown Univ.)
Clinical Associate Professor/Gainesville

OLSON, KENNETH B., M.D., (Harvard Medical Sch.)
Clinical Professor/New Smyrna Beach

STECHMILLER, BRUCE K., M.D., (Johns Hopkins)
Clinical Assistant Professor/Gainesville

## Pulmonary Medicine

* BLOCK, A. JAY, M.D., (Johns Hopkins)
Professor and Chief, and Professor in Anesthesiology

BLOCK, EDWARD R., M.D., (Johns Hopkins)
Associate Professor

* BOYSEN, PHILIP G., M.D. (Loyola-Stritch)
Assistant Professor and
Assistant Professor in Anesthesiology

HARMAN, ELOISE M., M.D., (Johns Hopkins)
Assistant Professor

* HARRIS, J. OCIE, M.D., (Univ. of Mississippi)
Associate Professor

RYERSON, EUGENE G., M.D., (N. J. College of Medicine)
Assistant Professor

SHARPE, ISABELLA K., M.D., (Med. Col. of Penn.)
Assistant Professor/JHEP/Jacksonville

* WYNNE, JAMES W., M.D., (Cornell University)
Associate Professor and
Assistant Professor in Anesthesiology

* ZAUNER, CHRISTIAN W., Ph.D., (Southern Illinois U.)
Professor and Professor in Physical Education

**Volunteer Faculty**

ANDERSON, AUGUSTUS E., M.D., (Tulane University)
Clinical Associate Professor/JHEP/Jacksonville

ARMSTRONG, ALLAN L., M.D., (Univ. of Virginia)
Clinical Instructor/Tampa

AUERBACH, DAVID, M.D., (Univ. of Florida)
Clinical Assistant Professor

COLEY, P. ANDREW, JR., M.D., (Univ. of Miami)
Clinical Assistant Professor/JHEP/Jacksonville

EYE, E. HOWARD, JR., M.D., (West Virginia Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

GREENBERG, ROBERT A., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

HENDERSON, FRANK W., M.D., (Jefferson Med. Col)
Clinical Assistant Professor/Lake City

JACKLER, IRA M., M.D., (University of Oklahoma)
Clinical Assistant Professor/JHEP/Jacksonville

MOOREHEAD, JOHN M., M.D., (Med. Col. of Ohio)
Clinical Assistant Professor/JHEP/Jacksonville

NEDER, GEORGE A., JR., M.D., (Emory Univ.)
Clinical Instructor/Orlando

OLSEN, GERALD N., M.D., (Univ. of Mississippi)
Clinical Associate Professor/JHEP/Jacksonville

REID, RICHARD A., M.D., (Indiana University)
Clinical Assistant Professor/JHEP/Jacksonville

## Renal Medicine

* CADE, J. ROBERT, M.D., (University of Texas)
Professor

FULLER, THOMAS J., M.D., (Northwestern University)
Associate Professor and Acting Chief

MAHONEY, JAMES J., JR., M.D., (Univ. of Florida)
Assistant Professor

MARBURY, THOMAS C., M.D., (University of Texas)
Assistant Professor

MARS, DONALD R., M.D., (University of Miami)
Assistant Professor

PETERSON, JOHN C., M.D., (Univ. of Florida)
Instructor

**Volunteer Faculty**

GREGORY, LOUIS F., JR., M.D., (Univ. of Mississippi)
Clinical Assistant Professor/JHEP/Jacksonville

HAYES, CHARLES P., JR., M.D., (Duke University)
Clinical Associate Professor/JHEP/Jacksonville

RAULERSON, J. DANIEL, M.D., (Univ. of Florida)
Clinical Instructor/Gainesville

VAZ, ANTHONY J., M.D., (Stanley Med. Col., India)
Clinical Assistant Professor/JHEP/Jacksonville

# NEUROLOGY

ANDRIOLA, MARY R., M.D., (Duke University)
Associate Professor

GREER, MELVIN, M.D., (New York University)
Professor and Chairman

* HEILMAN, KENNETH M., M.D., (Univ. of Virginia)
Professor

MUSELLA, LILLI, Ph.D., (McGill University)
Assistant Professor

VALENSTEIN, EDWARD, M.D., (Albert Einstein)
Associate Professor

WATSON, ROBERT T., M.D., (Univ. of Florida)
Professor

* WILDER, BUNA JOE, M.D., (Duke University)
Professor

* WILLMORE, LUTHER JAMES, M.D., (St. Louis Univ.)
Associate Professor

**Volunteer Faculty**

ANDRIOLA, MICHAEL J., M.D., (Duke University)
Clinical Assistant Professor/Largo

BERCAW, BEAUREGARD L., M.D. (Univ. of Virginia)
Clinical Assistant Professor/Clearwater

CUNNINGHAM, RICHARD W., M.D., (Univ. of Florida)
Clinical Instructor/Gainesville

FEUSSNER, GEORGE G., M.D., (Univ. of Pittsburgh)
Clinical Assistant Professor/Gainesville

GIPSON, AMOS C., M.D., (Vanderbilt University)
Clinical Instructor/Tampa

GREEN, JACOB, M.D., (University of Alabama)
Clinical Assistant Professor/JHEP/Jacksonville

HARRISON, THOMAS H., M.D., (Duke University)
Clinical Instructor/Tampa

HAYCOOK, WILLIAM M., M.D., (Univ. of Virginia)
Clinical Instructor/JHEP/Jacksonville

HUDGINS, ROBERT, M.D., (Med. Col. of Virginia)
Clinical Assistant Professor/JHEP/Jacksonville

KILGORE, MANLEY W., M.D., (U.C.L.A.)
Clinical Instructor/JHEP/Jacksonville

KOHLER, WILLIAM C., M.D., (University of Florida)
Clinical Assistant Professor/Tallahassee

LOPEZ, RAUL I., M.D., (University of Florida)
Clinical Associate Professor/Miami

McCULLAGH, WILLIAM H., M.D., (Emory Univ.)
Clinical Professor/JHEP/Jacksonville

MILLER, BAYARD D., M.D., (University of Florida)
Clinical Assistant Professor/Pensacola

POHLMAN, GLENN L., M.D., (Univ. of Minnesota)
Clinical Instructor/JHEP/Jacksonville

QUICK, DONALD T., M.D., (Case Western Reserve)
Clinical Associate Professor/Gainesville

RAY, WALTER F., M.D., (University of Florida)
Clinical Assistant Professor/Clearwater

RUSSO, LOUIS, M.D., (New York University)
Assistant Professor/JHEP/Jacksonville

SCALES, DAVID F., M.D., (University of Florida)
Clinical Instructor/JHEP/Jacksonville

SCHWARTZ, HARVEY D., M.D., (University of Florida)
Clinical Assisitant Professor/Boca Raton

THORNTON, ROBERT S., M.D., (Emory University)
Clinical Assistant Professor/Pensacola

VROOM, FREDERICK Q., M.D., (University of Florida)
Clinical Assistant Professor/Tallahassee

## NEUROSCIENCE

ACHE, BARRY W., Ph.D., (U. of Calif., Santa Barbara)
Joint Associate Professor of Neuroscience,
Zoology and Pathology

* BERNSTEIN, JERALD J., Ph.D., (Univ. of Michigan)
Professor

* BROWNELL, WILLIAM E., Ph.D., (Univ. of Chicago)
Assistant Professor

* DUNN, ADRIAN J., Ph.D., (Univ. of Cambridge)
Associate Professor

* FREUND, GERHARD, M.D., (J.W. Goethe University)
Affiliate Professor of Neuroscience and Medicine

GFELLER, EDUARD, M.D., (Univ. of Bern)
Affiliate Professor of Psychiatry and Neuroscience

* HEATON, MARIETA B., Ph.D., (N.C. State Univ.)
Associate Professor

* KING, ROBERT L., Ph.D., (Johns Hopkins)
Associate Professor

* LEONARD, CHRISTIANA M., Ph.D., (M.I.T.)
Associate Professor

* LUTTGE, WILLIAM G., Ph.D., (Univ. of Calif., Irvine)
Associate Professor and Acting Chairman

* MAHAN, PARKER E., D.D.S., Ph.D.,
(Emory, University of Rochester)
Joint Professor of Neuroscience and Professor and
Chairman, Department of Basic Dental Sciences

* MUNSON, JOHN B., Ph.D., (Univ. of Rochester)
Associate Professor

* SYPERT, GEORGE W., M.D., (Univ. of Washington)
Joint Associate Professor of Neuroscience
and Surgery

* THOMPSON, FLOYD J., Ph.D., (Indiana Univ.)
Assistant Professor of Neuroscience and
Joint Assistant Professor of Veterinary Medicine

* VAN HARTESVELDT, CAROL J., Ph.D., (U. of Rochester)
Joint Associate Professor of Neuroscience and
Associate Professor of Psychology

* VIERCK, CHARLES J., JR., Ph.D., (Univ. of Florida)
Professor

* WALKER, DON W., Ph.D., (Texas Christian Univ.)
Affiliate Associate Professor Neuroscience/VAH

* WILLMORE, LUTHER J., M.D., (Saint Louis Univ.)
Affiliate Assistant Professor of Neuroscience and
Neurology/VAH

* ZORNETZER, STEVEN F., Ph.D., (U. of Calif., Irvine)
Associate Professor

## OBSTETRICS AND GYNECOLOGY

* ABRAMS, ROBERT M., Ph.D., D.D.S., (Univ. of Penn.)
Associate Professor

* BARRON, DONALD H. Ph.D., (Yale University)
Professor

* BRACKBILL, YVONNE, Ph.D., (Stanford)
Professor (Joint)

CATON, DONALD, M.D., (Columbia University)
Associate Professor and
(Joint) Associate Professor in Anesthesiology

CHISHOLM, GEORGE W., M.D., (Med. Univ. of S.C.)
Instructor

CRUZ, AMELIA C., M.D., (Far Eastern Univ.)
Associate Professor

DALY, JAMES W., M.D., (Loyola University)
Professor

DOCKERY, J. LEE, M.D., (University of Arkansas)
Associate Professor and
Associate Dean of College of Medicine

FRIEDRICH, EDUARD G., M.D., (Johns Hopkins)
Professor and Chairman

GELMAN, STANLEY R., M.D., (Univ. of Florida)
Assistant Professor

GIBBS, CHARLES P., M.D., (Indiana University)
Associate Professor

HILL, HUGH M., M.D., (Johns Hopkins)
Professor and Associate Dean for
Student and Alumni Affairs

KALRA, PUSHPA S., Ph.D., (University of Delhi, India)
Assistant Professor

* KALRA, SATYA P., Ph.D., (University of Delhi, India)
Associate Professor

KELLNER, KENNETH R., M.D., Ph.D., (SUNY-Downstate)
Instructor

KRATINA, FREDRIC KARL, M.D., (Medical Col. of Ga.)
Assistant Professor (Joint) Infirmary

MAHAN, CHARLES S., M.D., (Northwestern Univ.)
Associate Professor

MONIF, GILLES R. G., M.D., (Boston University)
Associate Professor

* NOTELOVITZ, MORRIS, M.D., Ph.D.,
(Univ. of Witwatersrand, Johannesburg, South Africa)
Associate Professor

NUSS, ROBERT C., M.D., (Thomas Jefferson)
Adjunct Associate Professor/JHEP

QUINLAN, RAYMOND W., M.D., (Hahnemann Med. Col.)
Instructor

RIGGALL, FRANK C., M.D., (Univ. of West Virginia)
Assistant Professor

THOMPSON, ROBERT J., M.D., (Wayne State Univ.)
Adjunct Associate Professor and JHEP Chairman

* TSIBRIS, JOHN M., Ph.D., (Cornell)
Visiting Associate Professor

* VON MERING, OTTO, Ph.D., (Harvard)
Professor (Joint)

**Volunteer Faculty**

ALLGOOD, JACKSON L., JR., M.D., (University of Miami)
Clinical Associate Professor/JHEP/Jacksonville

BANCROFT, JOE W., JR., M.D., (University of Miami)
Clinical Associate Professor/JHEP/Jacksonville

BEADLING, LESLIE W., M.D., (Temple University)
Clinical Associate Professor/JHEP/Jacksonville

CARSON, DORIS N., M.D., (Ohio State University)
Clinical Associate Professor/JHEP/Jacksonville

FERRELL, ROGER ERNEST, M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

GILLILAND, CHARLES H., M.D., (University of Iowa)
Clinical Professor/Gainesville

GLENN, J. EUGENE, M.D., (Univ. of North Carolina)
Clinical Associate Professor/JHEP/Jacksonville

HAGEL, DONALD R., M.D., (Univ. of Nebraska)
Clinical Associate Professor/JHEP/Jacksonville

HALL, DOUGLAS C., M.D., (University of Florida)
Clinical Instructor/Ocala

HARDMAN, ALVIN A., M.D., (University of Florida)
Clinical Assistant Professor/Gainesville

HARRELL, JAMES E., M.D., (University of Florida)
Clinical Associate Professor/Stuart

HAYES, JAMES FRANKLIN, JR., M.D., (Univ. of Tenn.)
Clinical Associate Professor/JHEP/Jacksonville

JONES, JAMES R., JR., M.D., (Univ. of Georgia)
Clinical Associate Professor/Orlando

KIRBY, TAYLOR H., JR., M.D., (George Wash. Univ.)
Clinical Associate Professor/Gainesville

MAYER, GEORGE L., M.D., (Univ. of Arkansas)
Clinical Instructor/JHEP/Jacksonville

McDOWELL, RICHARD W., M.D., (Univ. of Penn.)
Clinical Professor/JHEP/Jacksonville

McNEILL, H. WYATT, M.D., (University of Miami)
Clinical Associate Professor/JHEP/Jacksonville

MEIN, ROBERT M., M.D., (Univ. of Louisville)
Clinical Associate Professor/JHEP/Jacksonville

MESSER, H. HUTSON, M.D. (University of Florida)
Clinical Associate Professor/Tallahassee

MOBLEY, DAVID W., M.D., (Med. Col. of Georgia)
Clinical Instructor/JHEP/Jacksonville

MOJADIDI, QUDRATULLAH, M.D., (Kabul Univ.)
Clinical Associate Professor/JHEP/Jacksonville

MULLEE, ROBERT G., M.D., (SUNY-Upstate)
Clinical Associate Professor/Gainesville

O'DONNELL, JAMES A., M.D., (Univ. of Florida)
Adjunct Assistant Professor (JHEP)

OBERDORFER, PAUL W., M.D., (Tulane University)
Clinical Assistant Professor/JHEP/Jacksonville

PHELAN, WILLIAM J., M.D., (Georgetown Univ.)
Clinical Associate Professor/JHEP/Jacksonville

PHILLIPS, CURTIS M., M.D., (Med. Col. of Georgia)
Clinical Associate Professor/JHEP/Jacksonville

PLATOCK, GERALD M., M.D., (Med. Col. of Georgia)
Clinical Associate Professor/JHEP/Jacksonville

ROSIN, ALEXANDER P., M.D., (Tulane University)
Clinical Assistant Professor/JHEP/Jacksonville

RUST, WILBUR C., M.D., (Albany Medical Col.)
Clinical Assistant Professor/JHEP/Jacksonville

SIMPSON, WILBUR CANNON, M.D., (Med. Univ. of S. C.)
Clinical Instructor/JHEP/Jacksonville

SUTER, MAX, M.D., (Tulane University)
Clinical Professor/JHEP/Jacksonville

THOMPSON, ROBERT J., M.D. (Wayne State Univ.)
Associate Professor/JHEP Chairman/Jacksonville

## OPHTHALMOLOGY

CASSIN, BARBARA C., B.S., (Simmons College)
Assistant Ophthalmologist

* DAWSON, WILLIAM W., Ph.D., (Florida State Univ.)
Professor

* ENOCH, JAY M., Ph.D., (Ohio State University)
Graduate Research Professor

FITZGERALD, CONSTANCE R., M.D., (Washington Univ.)
Associate Professor

* METCALF, JOSEPH F., Ph.D., (Florida State Univ.)
Assistant Research Scientist

POLACK, FRANK M., M.D., (San Marcos Univ.)
Professor

RABINOWICZ, IGNAZ MATTHEW, M.D.
(Cambridge University)
Associate Professor

RUBIN, MELVIN L., M.D., (University of Calif.)
Professor and Chairman

TOBEY, FRANK, Ph.D., (Univ. of Michigan)
Assistant Professor

TROBE, JONATHAN D., M.D., (Harvard University)
Assistant Professor

**Volunteer Faculty**

ANDERSON, WILLIAM H., M.D., (Univ. of Chicago)
Clinical Assistant Professor

CLOWER, JAMES W., M.D., (Univ. of Georgia)
Clinical Assistant Professor

COBB, WILLIAM T., M.D., (University of Florida)
Clinical Assistant Professor

DUKES, EARLE T., M.D., (Emory University)
Clinical Assistant Professor

GLOTFELTY, JOHN, M.D., (Univ. of Louisville)
Clinical Assistant Professor

HAZOURI, GERALD C., M.D., (Univ. of Florida)
Clinical Assistant Professor

HERRON, WARREN, M.D., (Univ. of Tennessee)
Clinical Assistant Professor

LUCAS, HOWARD C., M.D., (Cornell University)
Clinical Assistant Professor

MAGRUDER, GEORGE B., M.D., (Emory University)
Clinical Assistant Professor

PINKOSON, CHARLES, M.D., (Tulane University)
Clinical Assistant Professor

ROBBINS, JAMES E., M.D., (Emory University)
Clinical Assistant Professor

SMITH, DONALD L., M.D., (Jefferson Med. Col.)
Clinical Assistant Professor

VAN ARNAM, CARLETON E., M.D., (Univ. of Oregon)
Clinical Assistant Professor

## ORTHOPAEDICS

BRIGHT, ROBERT W., M.D., (George Washington Univ.)
Associate Professor of Orthopaedics and
Chief of Pediatric Orthopaedics

* BURCHARDT, HANS, Ph.D., (Univ. of Florida)
Assistant Professor

CAMBLIN, JOHN, M.D., (Queen's University of Belfast)
Assistant Professor/VAH

DELL, PAUL C., M.D., (Univ. of Florida)
Assistant Professor and
Chief of Hand and Microsurgery

* ENNEKING, WILLIAM, M.D., (U. of Wisconsin)
Eugene L. Jewett Professor and Chairman

GLOWCZEWSKIE, FRANK, JR., A.S., (Univ. of Florida)
Assistant in Orthopaedics

INDELICATO, PETER A., M.D., (N. Y. Medical College)
Assistant Professor and
Chief of Sports Medicine

MENDELOW, ARTHUR L., M.D., (U. of Witwatersrand)
Assistant Professor, VAH/Shands

MILLER, GARY, Ph.D., (Univ. of Florida)
Assistant Professor

PETTY, WILLIAM, M.D., (Univ. of Arkansas)
Associate Professor, VAH/Shands,
Chief of Arthritic and Reconstructive Surgery

SPANIER, SUZANNE, M.D., (Univ. of Florida)
Assistant Professor

SPRINGFIELD, DEMPSEY S., M.D., (Univ. of Florida)
Assistant Professor and Chief of Oncology

**Volunteer Faculty**

BINSKI, JAMES C., M.D., (Stritch School of Medicine)
Clinical Instructor/JHEP/Jacksonville

BRADY, LOUIS P., M.D., (Emory University)
Clinical Assistant Professor/Orlando

CROFT, CARL L., M.D., (Duke University)
Clinical Instructor/Winter Park

DEDO, RICHARD G., M.D., (Northwestern)
Clinical Assistant Professor/JHEP/Jacksonville

DYER, JAMES W., M.D., (Oklahoma University)
Clinical Instructor/JHEP/Jacksonville

FIPP, GEORGE J., M.D., (Indiana University)
Clinical Instructor/JHEP/Jacksonville

FRY, RICHARD M., M.D., (Temple University)
Clinical Assistant Professor/Gainesville

GILLESPY, THURMAN, JR., M.D., (Jefferson Med. Col.)
Clinical Instructor/Dayona Beach

GREEN, CAUSEY S., M.D., (University of Miami)
Clinical Assistant Professor/JHEP/Jacksonville

HOCKER, JOHN T. M.D., (University of Kansas)
Clinical Associate Professor/JHEP/Jacksonville

HOGSHEAD, HOWARD P., M.D., (University of Iowa)
Clinical Associate Professor/JHEP/Jacksonville

HOROWITZ, MARSHALL, M.D., (Univ. of Basle)
Adjunct Assistant Professor; Chairman/JHEP/Jacksonville

HUDSON, TERRY M., M.D., (Duke University)
Affiliate Assistant Professor

LACEY, JAMES A., M.D., (University of Georgia)
Clinical Instructor

LOVEJOY, JOHN F., M.D., (University of Florida)
Clinical Instructor, JHEP/Jacksonville

MARCH, ALLAN W., M.D., (Johns Hopkins University)
Joint Assistant Professor

MARSH, BURTON W., M.D., (University of Florida)
Clinical Instructor/Ocala

MEAD, CHARLES A., JR., M.D., (Geo. Wash. Univ.)
Clinical Assistant Professor, JHEP/Jacksonville

MOORE, THOMAS H., JR., M.D., (Univ. of Florida)
Clinical Instructor/Gainesville

MORSE, SEYMOUR, M.D., (Long Island Col. Of Med.)
Clinical Assistant Professor/JHEP/Jacksonville

NIXON, JOSEPH J., M.D., (Med. Col. of Georgia)
Clinical Instructor/Winter Park

PARR, PHILLIP L., M.D., (University of Florida)
Clinical Instructor/Gainesville

PIOTROWSKI, GEORGE Ph.D., (Case Western)
Affiliate Associate Professor/Jacksonville

PUJADAS, GUILLERMO M., M.D., (Univ. of Havana)
Clinical Instructor, JHEP/Jacksonville

RIDDICK, MAX F., M.D., (University of Tenn.)
Clinical Instructor/Winter Park

SHAW, CHARLES H., M.D., (Wayne State University)
Clinical Instructor/Gainesville

SPIVEY, JAMES N., M.D., (Med. Col. of S. C.)
Clinical Instructor/Orlando

STANFORD, THOMAS A., M.D., (Loma Linda Univ.)
Clinical Instructor/Orlando

SWITZER, HUGH, M.D.,
Clinical Instructor/JHEP/Jacksonville

THOMPSON, JOHN Q., M.D., (Harvard University)
Clinical Assistant Professor/JHEP/Jacksonville

TODD, ETHAN O., JR., M.D., (Med. Col. of S. C.)
Clinical Assistant Professor/JHEP/Jacksonville

VAUGHEN, JUSTINE L., M.D., (Temple University)
Clinical Assistant Professor/Gainesville

WALLACE, PAUL F., M.D., (University of Chicago)
Clinical Assistant Professor/St. Petersburg

WILLIAMS, JOHN W., JR., M.D., (Univ. of Miami)
Clinical Instructor/JHEP/Jacksonville

## PATHOLOGY

ALEXANDER, RONALD W., M.D., (Tulane Univ.)
Associate Professor

BALLINGER, WILLIAM E., M.D., (Univ. of Florida)
Assistant Professor

* BAER, HERMAN, M.D., (Univ. of Basle, Switz.)
Associate Professor

* BRAYLAN, RAUL C., M.D., (Buenos Aires Med. Sch.)
Associate Professor

* CRANDALL, CATHERINE A., Ph.D., (Purdue Univ.)
Assistant Professor

* DONNELLY, WILLIAM H., M.D., (Univ. of Ottawa)
Associate Professor and
Associate Professor of Pediatrics

* GRAMS, RALPH R., M.D., (Univ. of Minnesota)
Associate Professor

* HACKETT, RAYMOND L., M.D., (U. of Vermont)
Professor

HOOD, C. IAN, M.B., Ch.B., (Liverpool)
Professor

KEITT, ALAN S., M.D., (Harvard Medical School)
Associate Professor

* KLEIN, PAUL A., Ph.D., (University of Florida)
Associate Professor

KITCHENS, CRAIG, M.D., (University of Florida)
Instructor

LEZOTTE, DENNIS C., Ph.D., (St. Univ. of New York)
Assistant Research Scientist

* MAINO, VERNON C., Ph.D., (Univ. of Rochester)
Assistant Professor

* MACLAREN, NOEL, M.B., Ch.B.,
(U. of Otago, New Zealand)
Professor

* MOSCOVICI, CARLO, Ph.D., (Univ. of Rome)
Professor

* NORMANN, SIGURD J., M.D., Ph.D., (U. of Wash.)
Associate Professor

* PECK, AMMON B., Ph.D., (Univ. of Wisconsin)
Assistant Professor

PIERSON, K KENDALL, M.D., (New York Univ.)
Professor

PILKINGTON, JOSEPH W., M.D., (Emory Sch. of Med.)
Assistant Professor

* RYDEN, SALLY E., M.D., (Univ. of Michigan)
Assistant Professor

* SCORNIK, JUAN D., M.D., (U. of La Plata, Argentina)
Assistant Professor

* SMITH, RICHARD T., M.D., (Tulane University)
Professor and Chairman and
Professor in Pediatrics

* TEAGUE, PERRY O., Ph.D., (Univ. of Oklahoma)
Associate Professor

* WOODARD, JAMES C., D.V.M., Ph.D., (M.I.T.)
Associate Professor and
Associate Professor in College of Veterinary Medicine

**Volunteer Faculty**

BYERS, GEORGE E., M.D., (Temple University)
Clinical Associate Professor

ECHEVARRIA, RENE, M.D., (Univ. of Havana)
Clinical Associate Professor/St. Petersburg

HARDY, NED M., M.D., (University of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

RHATIGAN, RONALD M., M.D., (Univ. of Iowa)
Clinical Associate Professor and
JHEP Chairman/Jacksonville

SAFFOS, ROSILIE O., M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

## PEDIATRICS

### General Pediatrics

BAUSHER, JUDY C., M.D., (Univ. of Florida)
Assistant Professor and Chief Resident

CHEDID, PHILIPPE, M.D., (French Faculty of Med.)
Assistant Professor/JHEP

DEBUSK, FRANKLIN L., M.D., (Johns Hopkins)
Professor and Chief

FAKHREDDINE, FUAD A., M.D., (Univ. of Baghdad)
Instructor/JHEP

GOUDARZI, TAJVAR, M.D., (Tehran Med. Sch.)
Instructor/JHEP

PESEK, JOSEPH A., M.D., (Univ. of Miami)
Assistant Professor/JHEP

SOLER, GLADYS P., M.D., (Univ. of Havana)
Assistant Professor/JHEP

SOUD, GARY G., M.D., (Univ. of Barcelona)
Assistant Professor/JHEP

WEBER, F. THOMAS, M.D., (Univ. of Cincinnati)
Assistant Professor

## Allergy/Immunology

BETHEA, ALTA L., M.D., (Univ. of Mississippi)
Instructor

## Cardiology

GESSNER, IRA H., M.D., (Univ. of Vermont)
Professor and Chief

KAMINSKY, MARC E., M.D., (Cornell Univ.)
Assistant Professor/JHEP

MILLER, BILLIE LYNN, M.D., (Univ. of Chicago)
Assistant Professor

MILLER, ROBERT, M.D., (Univ. of Florida)
Associate Professor/JHEP

SCHIEBLER, GEROLD L., M.D., (Harvard Univ.)
Professor and Chairman of Department

VAN MIEROP, L.H.S., M.D., (St. Univ. of Leiden)
Graduate Research Professor and
Professor in Pathology

VICTORICA, BENJAMIN E., M.D., (Univ. of Argentina)
Associate Professor

## Endocrinology

ROSENBLOOM, ARLAN L., M.D., (Univ. of Wisconsin)
Professor and Chief

TOLAYMAT, ASAD, M.D., (Damascas Sch. of Medicine)
Assistant Professor/JHEP

## Genetics

ANDRES, JOEL M., M.D., (St. Univ. of N.Y.)
Assistant Professor

* FRIAS, JAIME L., M.D., (Univ. of Concepcion)
Professor and Chief

GARNICA, ADOLFO D., M.D., (Univ. of Calif.)
Associate Professor

NETZLOFF, MICHAEL L., M.D., (Univ. of Florida)
Assistant Professor

WILLIAMS, CHARLES A., M.D., (Univ. of Florida)
Instructor and Medical Director,
Sunland Training Center

## Hematology

BARBOSA, JERRY L., M.D., (Univ. of Madrid, Spain)
Assistant Professor and Acting Chief

DEARTH, JAMES C., M.D., (Univ. of Wisconsin)
Assistant Professor

## Immunology and Infectious Diseases

* AYOUB, ELIA M., M.D., (American Univ. of Beirut)
Professor and Chief

* GRIZZARD, MICHAEL B., M.D., (Univ. of Michigan)
Assistant Professor

* SHULMAN, STANFORD T., M.D., (Univ. of Chicago)
Associate Professor

## Neonatology

CHIU, THOMAS T.W., M.D., (Univ. of Hong Kong)
Assistant Professor/JHEP

DRUMMOND, WILLA H., M.D., (Univ. of Penn.)
Assistant Professor

EITZMAN, DONALD V., M.D., (Univ. of Iowa)
Distinguished Service Professor and Chief

GARRISON, R. DONALD, M.D., (Univ. of N. C.)
Assistant Professor/JHEP

KANTOR, NEIL M., D.O., (Phil. Col. of Osteopathic Med.)
Assistant Professor/JHEP

NELSON, ROBERT M. JR., M.D., (Univ. of Washington)
Assistant Professor

* RESNICK, MICHAEL B., Ed.D., (Univ. of Florida)
Assistant Professor

SETZER, EMMALEE, M.D., (Univ. of Alabama)
Assistant Professor

## Nephrology

FENNELL, ROBERT S., III, M.D., (Univ. of Florida)
Associate Professor

GARIN, EDUARDO H., M.D., (University of Chile)
Associate Professor

IRAVANI, ABDOLLAH, M.D., (Tehran Univ.)
Instructor

LEVIN, SIDNEY, M.D., (Baylor Univ.)
Professor and Pediatric Chairman/JHEP

* RICHARD, GEORGE A., M.D., (Univ. of Pittsburg)
Professor and Chief

WHITWORTH, JAY M., M.D., (Indiana Univ.)
Associate Professor/JHEP

## Neurology

ROSS, JOHN J., M.D., (Harvard Univ.)
Professor and Chief

## Pulmonary

LOUGHLIN, GERALD M., M.D., (Univ. of Rochester)
Assistant Professor

MANGOS, JOHN A., M.D.,
(Aristotelean Univ. Med. School, Greece)
Professor and Chief

PANIDES, WALLACE C., Ph.D., (Florida State Univ.)
Assistant Professor

### Volunteer Faculty

ANDERSON, TORSTEN, M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

AXLEY, JOHN, M.D., (Univ. of Maryland)
Clinical Assistant Professor/PEP/Pensacola

BAKER, ROY M., M.D. (Emory Univ.)
Clinical Professor/JHEP/Jacksonville

BARTLETT, JOHN, M.D., (Univ. of Florida)
Clinical Assistant Professor/Fort Meyers

BEAM, LEWIS R. JR., M.D., (Vanderbilt Univ.)
Clinical Associate Professor/Winter Park

BELL, WILLIAM R., M.D., (Duke University)
Clinical Professor/PEP/Pensacola

BENSON, ROBERT S., M.D., (Emory Univ.)
Clinical Assistant Professor/PEP/Pensacola

BLOOM, FREDERICK L., M.D., (Med. Col. of Wisconsin)
Clinical Assistant Professor/Sarasota

BOOTHBY, RICHARD J., M.D., (St. Univ. of N.Y.)
Clinical Associate Professor/JHEP/Jacksonville

BOWERS, JOHN A., M.D., (Med. Col. of Georgia)
Clinical Assistant Professor/JHEP/Jacksonville

BRILL, THOMAS M., M.D., (Univ. of Michigan)
Clinical Professor/Gainesville

BULLARD, JOHN F. JR., M.D., (Univ. of Florida)
Clinical Assistant Professor/PEP/Pensacola

BUTSCHER, WILLIAM C., M.D., (Jefforsoa Med. Col.)
Clinical Professor/Ocala

CARITHERS, CORNELIA M., M.D., (Cornell Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

CARITHERS, HUGH A., M.D., (Emory Univ.)
Clinical Professor/JHEP/Jacksonville

CIMINO, LOUIS E., M.D., (St. Louis Univ.)
Clinical Assistant Professor/Sarasota

CLEMENT, STEPHEN P., M.D., (Harvard Univ.)
Clinical Assistant Professor/Sarasota

CLUBBS, ROGER C., M.D., (Univ. of Arkansas)
Clinical Assistant Professor/PEP/Pensacola

COHAN, ROBERT H., M.D., (Univ. of N.C.)
Clinical Assistant Professor/PEP/Pensacola

COHEN, JERROLD H., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/PEP/Pensacolca

COLYER, ROBERT F. JR., M.D., (Emory Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

CONDRON, COLIN J., M.D., (Univ. of Dublin)
Clinical Associate Professor/Orlando

CRANE, JAMES D., M.D., (Duke Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

DAVID, JOSEPH K., M.D., (Duke Univ.)
Clinical Professor/JHEP/Jacksonville

DELL, GEORGE A., M.D., (St. Louis Univ.)
Clinical Professor/Gainesville

DELLINGER, CHARLES T., M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

EISEN, SAUL, M.D., (Emory University)
Clinical Assistant Professor/JHEP/Jacksonville

ESCHENBURG, CHARLES, M.D., (Univ. of Colorado)
Clinical Assistant Professor/Delray Beach

FLEET, JOEL, M.D., (Tulane Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

FRAME, EUGENE M., M.D., (Temple Univ.)
Clinical Associate Professor/JHEP/Jacksonville

FRASER, DONALD J., M.D., (Hahnemann Med. Col.)
Clinical Associate Professor/Orlando

GABERTAN, BONIFACIO, M.D., (U. of Santo Tomas)
Clinical Instructor/JHEP/Jacksonville

GILLIS, HARRY G., M.D., (Univ. of Florida)
Clinical Assistant Professor/Daytona Beach

GINTER, MYRNA B., M.D., (Univ. of Havana)
Clinical Associate Professor/JHEP/Jacksonville

GIUSTI, VINCENT F., M.D., (Univ. of Pennsylvania)
Clinical Assistant Professor/Orlando

GRANAT, LLOYD E., M.D., (Univ. of N.Y.)
Clinical Assistant Professor/JHEP/Jacksonville

GUTTERY, EDWIN III, M.D., (Univ. of Louisville)
Clinical Assistant Professor/Fort Myers

GYLAND, STEPHEN P., M.D., (Vanderbilt Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

HABIB, AMID, M.D., (Damascus Univ.)
Clinical Instructor/Orlando

HADLEY, WILLIAM P., M.D., (Duke Univ.)
Clinical Professor/Gainesville

HANSBERRY, WILLIAM E., M.D., (Univ. of Miami)
Clinical Associate Professor/JHEP/Jacksonville

HOFFMAN, LLOYD E., M.D., (Univ. of Florida)
Clinical Assistant Professor/Salt Lake City, Utah

HORN, KENNETH A., M.D., (N. Y. Univ. Sch. of Med.)
Clinical Associate Professor/JHEP/Jacksonville

INGLE, ERON B., M.D., (Tulane Medical School)
Clinical Assistant Professor/Orlando

IVEY, JOHN F., M.D., (Baylor Univ.)
Clinical Associate Professor/JHEP/Jacksonville

JENKINS, THOMAS G., M.D., (Univ. of Nebraska)
Clinical Assistant Professor/Pensacola

JONES, JIMMY E., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/PEP/Pensacola

JONGCO, ETHELINDA R., M.D., (U. of Philippines)
Clinical Assistant Professor/Kissimmee

JONGKO, GERMELINA R., M.D., (U. of Santo Tomas)
Clinical Assistant Professor/PEP/Pensacola

KANAREK, KEITH S., M.D., (Univ. of Witwatersrand)
Clinical Assistant Professor/Orlando

KELLY, WALTER C., M.D., (Temple Univ.)
Clinical Associate Professor/JHEP/Jacksonville

KING, ALTON E., M.D., (University of Miami)
Clinical Instructor/JHEP/Jacksonville

KOHLER, WILLIAM C., M.D., (Univ. of Florida)
Clinical Assistant Professor/Tallahassee

KOKOMOOR, MARVIN L., M.D., (Univ. of Michigan)
Clinical Assistant Professor/Gainesville

LANE, JOHN G. JR., M.D., (George Wash. Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

LANIER, JAMES C., M.D., (Vanderbilt Univ.)
Clinical Associate Professor/JHEP/Jacksonville

LASPADA, ANTHONY, M.D., (Univ. of Bologna)
Clinical Assistant Professor/JHEP/Jacksonville

LAZOFF, STEPHEN, M.D., (Boston Univ. Sch. of Med.)
Clinical Associate Professor/JHEP/Jacksonville

MANTILLA, GONZALO, M.D., (Univ. of Florida)
Clinical Assistant Professor/Quito, Equador

MARRIOTT, HENRY J., M.D., (Oxford Univ.)
Clinical Professor/St. Petersburg

MCCAIN, JAMES R., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/JHEP/Jacksonville

MCINTOSH, CHARLES B., M.D., (Meharry Med. Col.)
Clinical Associate Professor/JHEP/Jacksonville

MCWILLIAMS, NEIL E., M.D., (Univ. of Florida)
Clinical Assistant Professor/PEP/Pensacola

MIGNEREY, THOMAS G., M.D., (Ohio State Univ.)
Clinical Assistant Professor/PEP/Pensacola

MOORE, MARCUS M., M.D., (Duke University)
Clinical Associate Professor/Fort Meyers

MORGAN, WILLIAM C., M.D., (Univ. of Florida)
Clinical Assistant Professor/Sarasota

MORONEY, JOHN D., M.D., (St. Louis Univ.)
Clinical Assistant Professor/Tampa

MOSS, JAMES K., M.D., (Med. Col. of Georgia)
Clinical Assistant Professor/JHEP/Jacksonville

O'DANIEL, JOSEPH R., M.D., (Univ. of Kentucky)
Clinical Instructor/PEP/Pensacola

PARKHURST, ROBERT D., M.D., (Univ. of Michigan)
Clinical Associate Professor/Valdosta, Georgia

PATTANI, JAYKUMAR, M.D., (Bombay Univ.)
Clinical Instructor/JHEP/Jacksonville

PERLMAN, M. ALLAN, M.D., (Univ. of Miami)
Clinical Assistant Professor/JHEP/Jacksonville

PICARDI, MERCEDES E., (Univ. of Puerto Rico)
Clinical Assistant Professor/PEP/Pensacola

PICKENS, JAMES C., (University of Alabama)
Clinical Assistant Professor/PEP/Pensacola

POTTER, NELL W., (Univ. of Florida)
Clinical Assistant Professor/PEP/Pensacola

POWERS, DAVID W., M.D., (Univ. of Florida)
Clinical Assistant Professor/Inverness

PRICE, MORRIS A., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

RAGLAND, ROBERT B., M.D., (Duke Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

REDD, HENRY J., M.D., (Johns Hopkins)
Clinical Assistant Professor/Lakeland

RITROSKY, JOHN JR., M.D., (St. Univ. of N.Y.)
Clinical Associate Professor/Fort Myers

ROSENBLATT, CHERYL C., M.D., (St. Univ. of N.Y.)
Clinical Assistant Professor/JHEP/Jacksonville

ROWLEY, SAMUEL D., M.D., (Jefferson Med. Col.)
Clinical Assistant Professor/JHEP/Jacksonville

SABATER, ALBERTO, M.D., (Univ. of Philippines)
Clinical Instructor/JHEP/Jacksonville

SANDERS, SANDY K., M.D., (Univ. of Florida)
Clinical Associate Professor/Gainesville

SCHAFER, WALTER L., M.D., (Ohio State Univ.)
Clinical Assistant Professor/St. Petersburg

SHASHY, ROBERT A., M.D., (Med. Col. of S.C.)
Clinical Associate Professor/JHEP/Jacksonville

SKINNER, RICHARD G. JR., M.D., (Emory Univ.)
Clinical Professor/JHEP/Jacksonville

SMALLWOOD, DON, M.D., (Indiana Med. School)
Clinical Assistant Professor/Delray Beach

STEARMAN, MANDELL, M.D., (George Wash. Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

THRELKEL, ROBERT, M.D., (Duke University)
Clinical Associate Professor/JHEP/Jacksonville

TOWNSEND, JAMES W., M.D., (Duke Univ.)
Clinical Associate Professor/JHEP/Jacksonville

VINSON, ROBERT H., M.D., (Univ. of N.C.)
Clinical Associate Professor/Vero Beach

WALKER, JAMES W., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/JHEP/Jacksonville

WEISE, EDMUND R., M.D., (Univ. of Virginia)
Clinical Instructor/JHEP/Jacksonville

WELTY, PAUL B., M.D., (Tulane Med. School)
Clinical Assistant Professor/St. Petersburg

WESTMARK, EDWARD, M.D., (Univ. of Florida)
Clinical Professor/PEP/Pensacola

WHITCOMB, JOHN H., M.D., (Harvard Med. School)
Clinical Professor/PEP/Pensacola

WHITNEY, RICHARD H. JR., (Univ. of Alabama)
Clinical Assistant Professor/PEP/Pensacola

WILSON, ROBERT K., M.D., (Univ. of Alabama)
Clinical Assistant Professor/PEP/Pensacola

WOLFSON, SORRELL L., M.D., (Vanderbilt Univ.)
Clinical Associate Professor/Tampa

WOODWARD, PAT, M.D., (Emory University)
Clinical Assistant Professor/Quincy

WORRELL, CYNTHIA, M.D., (Univ. of Arkansas)
Clinical Assistant Professor/PEP/Pensacola

WUBBENA, PAUL F. JR., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

ZAVELSON, THOMAS M., M.D., (Duke Univ.)
Clinical Assistant Professor/Gainesville

ZIMMERMAN, DALE, M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

## PHARMACOLOGY & THERAPEUTICS

* CARLSON, GERALD M., Ph.D., (Univ. of Michigan)
Associate Professor
* CHAPMAN, SHARON K., Ph.D., (Univ. of Florida)
Assistant Professor
* GARG, LAL C., Ph.D., (University of Florida)
Associate Professor

KADZIELAWA, CHRIS, M.D., Ph.D.,
(Krakow Acad. Med., Warsaw Acad. Med.)
Associate Professor

* KEM, WILLIAM R., Ph.D., (Univ. of Illinois)
Associate Professor
* LEIBMAN, KENNETH C., Ph.D., (New York Univ.)
Professor
* MAREN, THOMAS H., M.D., (Johns Hopkins)
Graduate Research Professor

MUTHER, THOMAS F., Ph.D., (Leeds University)
Associate Professor

* NEIMS, ALLEN H., M.D., Ph.D., (Johns Hopkins)
Professor and Chairman and Professor of Pediatrics
* SHIVERICK, KATHLEEN T., Ph.D., (Univ. of Vermont)
Assistant Professor
* SILVERMAN, DAVID N., Ph.D., (Columbia Univ.)
Associate Professor
* TRAVIS, DAVID M., M.D., (Vanderbilt Univ.)
Professor
* VOGH, BETTY P., Ph.D., (University of Florida)
Associate Professor

## PHYSIOLOGY

* CASSIN, SIDNEY, Ph.D., (Univ. of Texas)
Professor
* FISHER, MARTIN J., Ph.D., (W. Virginia Univ.)
Assistant Professor
* FREGLY, MELVIN J., Ph.D., (Rochester Univ.)
Professor
* GERENCSER, GEORGE A., Ph.D., (Indiana Univ.)
Associate Professor
* JAEGER, MARC J., M.D., (University of Bern)
Professor

* OTIS, ARTHUR B., Ph.D., (Brown University)
Professor and Acting Chairman

* POSNER, PHILIP, Ph.D., (SUNY-Downstate)
Associate Professor

* STAINSBY, WENDELL N., Sc.D., (Johns Hopkins)
Professor

## PSYCHIATRY

ADAMS, JOHN E., M.D., (Cornell)
Professor and Chairman and
Professor of Clinical Psychology

AREY, SANDRA, Ph.D., (Univ. of Florida)
Assistant Professor of Sociology in Psychiatry

ASHAMALLA, MEDHAT G., M.D., (Univ. of Alexandria)
Assistant Professor/VAH

BARNARD, GEORGE W., M.D., (Univ. of North Carolina)
Associate Professor and Chief,
Consultation-Liaison Service

BELAR, CYNTHIA D., Ph.D., (Ohio University)
Joint Assistant Professor of Clinical Psychology
in Psychiatry and Assistant Professor of Clinical
Psychology

* BLASHFIELD, ROGER K., Ph.D., (Indiana Univ.)
Associate Professor of Clinical Psychology
in Psychiatry, and Associate Professor
of Clinical Psychology

BUHL, JOANNE M., M.Ed., (Univ. of Florida)
Assistant in Psychiatry

CARRERA, III, FRANK, M.D., (Emory University)
Associate Professor and Acting Chief, Division of
Child and Adolescent Psychiatry and
Associate Professor of Pediatrics

COLLINS, DOROTHY E., M.A., (Univ. of Chicago)
Associate Professor of Social Work in Psychiatry

DIRECTOR, KENNETH L., M.D., (Albany Med. Col.)
Assistant Professor/VAH

FABRICK, ARTHUR L., M.S.W., (Univ. of N. C.)
Associate Professor of Social Work in Psychiatry

GFELLER, EDUARD, M.D., (Universitaet Bern, Switz.)
Professor/VAH and Chief, Psychiatry Service,
VA Medical Center

GORDON, RICHARD E., M.D., Ph.D., (U. of Michigan)
Associate Professor and
Associate Professor of Clinical Psychology

HOLZER, III, CHARLES E., Ph.D., (Univ. of Florida)
Assistant Professor of Sociology in Psychiatry and
Assistant Professor of Sociology

* JOHNSON, SUZANNE B., Ph.D., (SUNY)
Assistant Professor of Clinical Psychology in Psychiatry,
and Assistant Professor of Clinical Psychology

KULDAU, JOHN M., M.D., (Western Reserve Univ.)
Associate Professor and Director,
Residency Training Program and
Program in Social and Community Psychiatry

LLINAS, JOSE J., M.D., (Havana Univ. Med. Sch.)
Professor and Chief, Student Mental Health Service, and
Professor of Community Health and Family Medicine

LYONS, HENRY R., M.D., (Georgetown Univ.)
Associate Professor/VAH and
Associate Chief of Staff for Education,
VA Medical Center

MASKIN, MEYER H., M.D., (Wayne University)
Professor Emeritus

McDONALD, NANCY F., M.S.W., (Univ. of N. C.)
Associate Professor of Social Work in Psychiatry

MELAMED, BARBARA G., Ph.D., (Univ. of Wisconsin)
Professor of Clinical Psychology and
Professor of Clinical Psychology in Psychiatry

MILNER, III, GILBERT C., M.D.,
(Univ. of Texas Southwestern)
Associate Professor

MOSKOVITZ, RICHARD A., M.D., (Harvard)
Assistant Professor

MUNIZ, CARLOS E., M.D., (Havana Univ. Med. Sch.)
Associate Professor/VAH and
Associate Professor of Pharmacy

NEWMAN, E. GUSTAVE, M.D., (Duke University)
Associate Professor

NEWMAN, ROBERT E., M.D., (Geo. Washington Univ.)
Assistant Professor and Chief,
Adolescent Inpatient Unit

OLDFIELD, ELIZABETH A., (Univ. of Florida)
Assistant in Psychiatry

PERRY, NATHAN W., Ph.D., (Florida State Univ.)
Joint Professor of Clinical Psychology in Psychiatry
and Professor and Chairman of Clinical Psychology

* PLUTZKY, MAXIMO, M.D., (Havana Univ. Med. Sch.)
Professor and Chief,
Adult Psychiatry Outpatient Clinic;
Professor of Clinical Psychology and
Director of Undergraduate Training

RAND, COLLEEN S. W., Ph.D., (Stanford Univ.)
Assistant Professor of Psychology in Psychiatry

* REKERS, GEORGE A., Ph.D., (Univ. of Calif./L.A.)
Associate Professor of Clinical Psychology in Psychiatry,
Associate Professor of Clinical Psychology
and Associate Professor of Pediatrics

RESNICK, MICHAEL B., Ed.D., (Univ. of Florida)
Joint Assistant Professor of Educational Psychology
in Psychiatry and Assistant Professor of Pediatrics

ROBBINS, MARILYN J., B.S., (Iowa State Univ.)
Associate in Psychiatry

ROBERTSON, MARY F., M.A., (Univ. of Toronto)
Associate in Psychiatry and
Associate in Pediatrics

RUFFIN, JR., WILLIAM C., M.D., (Univ. of N. C.)
Professor and Chief of Staff/STH

SPRINGER, PHILIP K., M.D., (Univ. of Mississippi)
Assistant Professor and Chief,
Adult and Adolescent Inpatient Services

SULLWOLD, ARTHUR F., M.D., (Louisiana State Univ.)
Assistant Professor/VAH

SUTTER, ANN B., M.S.W., (Univ. of Oklahoma)
Instructor of Social Work in Psychiatry

VERA, MARIA I., M.S.W., (Univ. of Kansas)
Instructor of Social Work in Psychiatry

* WARHEIT, GEORGE J., Ph.D., (Ohio State Univ.)
Professor of Sociology in Psychiatry and
Professor of Sociology

WARRINGTON, MARILYN M., Ph.D., (Univ. of Florida)
Assistant Professor of Special Education in Psychiatry

**Volunteer Faculty**

ADAIR, CLARK H., M.D., (Dalhousie Univ.)
Clinical Assistant Professor/Arcadia

ANO, NELITA R., M.D., (Univ. of Florida)
Clinical Instructor/South Daytona

ARANETA, ENRIQUE, M.D., (Univ. of Philippines)
Clinical Associate Professor/Jacksonville

BUCHHOLZ, ROBERT A., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

BURKE, T. FINTON, M.D., (National Univ. of Ireland)
Clinical Professor/Macclenny

CAHOON, STUART N., M.D., (Temple Univ.)
Clinical Professor/Tallahassee

CASSISI, ELAYNE E., M.D., (Univ. of Miami)
Clinical Instructor/Gainesville

CATANZARO, RONALD J., M.D., (Washington Univ.)
Clinical Associate Professor/West Palm Beach

COGGINS, DEBORAH R., M.D., (Duke Univ.)
Clinical Associate Professor/Gainesville

DEAN, STANLEY R., M.D., (Univ. of Michigan)
Clinical Professor/Miami

EMERSON, RICHARD P., M.D., (Harvard Univ.)
Clinical Assistant Professor/Miami

FORIZS, LORANT, M.D., (Univ. of Szeged)
Clinical Professor/Tarpon Springs

GELFAND, FRANCINE L., M.D., (N. J. Col. of Med.)
Clinical Assistant Professor/Leesburg

GOSSINGER, GARY T., M.D., (Univ. of Michigan)
Clinical Assistant Professor/Gainesville

HAMPTON, ARCHIBALD, M.D., (Emory Univ.)
Clinical Assistant Professor/Palatka

HANKINS, GARY C., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

KESKINER, ALI, M.D., (McGill Univ.)
Clinical Assistant Professor/Tarpon Springs

KING, E. HENRY, M.D., (Columbia Col. of Phys./Surg.)
Clinical Assistant Professor/Macclenny

KING, TAYLOR R., M.D., (Vanderbilt Univ.)
Clinical Assistant Professor/Jacksonville

KOLIN, IRVING S., M.D., (SUNY-Upstate)
Clinical Assistant Professor/Orlando

LANGEE, HARVEY R., M.D., (Stanford Univ.)
Clinical Assistant Professor/Gainesville

LAZORITZ, MARTIN, M.D., (Med. Col. of Va.)
Clinical Assistant Professor/Orlando

MEADOWS, RICHARD L., M.D., (Univ. of Florida)
Clinical Assistant Professor/Dunedin

MILLER, ERNEST C., M.D., (Tulane Univ.)
Clinical Instructor/Jacksonville

MOST, BERTHA M., M.D., (Univ. of Pittsburgh)
Adjunct Assistant Professor/Gainesville

NELSON, JOHN F., M.D., (Univ. of Florida)
Clinical Instructor/Gainesville

OGBURN, BENJAMIN R., M.D., (Med. Col. of Va.)
Clinical Assistant Professor/Pensacola

POLLACK, ROBERT W., M.D., (SUNY-Downstate)
Clinical Assistant Professor/Orlando

REINHARDT, ROGER F., M.D., (Med. Col. of Ga.)
Clinical Associate Professor/Pensacola

SALL, DAVID L., M.D., (Thomas Jefferson Univ.)
Clinical Assistant Professor/Jacksonville

SCOTT, GWENDOLYN L., M.D., (Univ. of Cincinnati)
Clinical Assistant Professor/Tarpon Springs

STEIN, JOEL M., M.D., (Univ. of Florida)
Clinical Assistant Professor/Jacksonville

STEPHENSON, F. DOUGLAS, M.A., (Univ. of Chicago)
Clinical Instructor/Gainesville

STIEFEL, JOHN R., M.D., (Emory Univ.)
Clinical Assistant Professor/Gainesville

TABOADA, VIOLA Y., M.D., (Cebu Inst. of Tech.)
Clinical Instructor/Crystal River

VERGARA, ALEJANDRO, M.D., (Univ. of Havana)
Clinical Assistant Professor/Jacksonville

WARSON, SAMUEL, M.D., (McGill Univ.)
Clinical Professor/Sarasota

WELLBORN, JR., WALTER H., M.D., (Emory)
Clinical Professor/Tarpon Springs

WILDER, J. LLOYD, M.D., (Loma Linda Univ.)
Clinical Instructor/Orlando

ZEITLER, ROBERT G., M.D., (Washington Univ.)
Clinical Assistant Professor/Tarpon Springs

## RADIOLOGY

* AGEE, FRANK O., M.D., (Louisiana State Univ.)
Professor

* BROOKEMAN, VALERIE A., Ph.D., (U. of St. Andrews)
Professor

CLORE, FORREST C., M.D., (Univ. of Michigan)
Affiliate Associate Professor/VAH

COUCH, MARGARET W., Ph.D., (Univ. of Florida)
Affiliate Assistant Research Professor/VAH

CURRY, SUSAN L., M.D., (Univ. of Florida)
Instructor

FELMAN, ALVIN H., M.D., (Univ. of Cincinnati)
Professor

* FITZGERALD, LAWRENCE T., Ph.D., (Univ. of Florida)
Associate Professor

FITZSIMMONS, JEFFREY R.,
Assistant in Radiology

GANO, OVID R., B.E.E., (Univ. of Florida)
Assistant Professor

* HAWKINS, IRVIN F., M.D., (Univ. of Maryland)
Professor

HODGES, PAUL C., M.D., Ph.D., (Washington Univ.)
Adjunct Professor

HUDSON, TERRY M., M.D., (Duke Univ.)
Assistant Professor

JOYCE, PETER H., M.D., (Trinity College)
Assistant Professor

KAUDE, JURI V., M.D., (Univ. of Kiel)
Professor

LUTHMANN, ROBERT W., Ph.D., (Univ. of Florida)
Medical Physicist

MARECI, THOMAS H., B.S., (Univ. of Florida)
Assistant in Radiology

* MAUDERLI, WALTER, D.Sc., (Fed. Inst. of Tech.)
Professor

QUISLING, RONALD G., M.D., (Univ. of Wisconsin)
Assistant Professor

SCOTT, KATHERINE N., Ph.D., (Univ. of Florida)
Associate Research Professor/VAH

SOONG, JOHN, M.D., (Univ. of West Indies)
Instructor

WEINSHELBAUM, ARLENE M., M.D., (Univ. of Chicago)
Assistant Professor

* WILLIAMS, CLYDE M., M.D., Ph.D., (Baylor Univ.)
Professor and Chairman

## SURGERY

### General Surgery

ALEXANDER, RAYMOND H., M.D., (Duke Univ.)
Assistant Professor and Chief/VAH

BRIENT, BRUCE W., M.D., (Univ. of Kansas)
Assistant Professor/VAH

PFAFF, WILLIAM W., M.D., (Buffalo Univ.)
Professor and Director of
Transplantation Program

STEPHENSON, SAM E., JR., M.D. (Vanderbilt)
Professor/JHEP/Jacksonville

THOMAS, JAMES M., M.D., (Univ. of Florida)
Assistant Professor and Chairman/JHEP/Jacksonville

VOGEL, STEPHEN B., M.D., (Univ. of Florida)
Associate Professor

WOODWARD, EDWARD R., M.D., (Univ. of Chicago)
Professor and Chairman, Chief of General Surgery

**Volunteer Faculty**

ANDERSON, HORACE M., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

ATKINSON, SAMUEL C., M.D., (Tulane Univ.)
Clinical Instructor/JHEP/Jacksonville

BEGGS, JOHN H., M.D., (Univ. of Minnesota)
Clinical Assistant Professor/Lake City

BENSON, ROBERT J., M.D., (Washington Univ.)
Clinical Instructor/JHEP/Jacksonville

BLACK, BRUCE A., M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

BOND, JAMES W., M.D., (Indiana Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

BROWN, J. BROOKS, M.D. (Tulane Univ.)
Clinical Associate Professor/JHEP/Jacksonville

BUSHKIN, FREDERIC L., M.D., (Howard Univ.)
Clinical Assistant Professor/Jacksonville

CHACKO, JOHN K., M.D., (Univ. of Kerala)
Clinical Assistant Professor/Lake City

COLLINS, CLYDE M., M.D., (Med. Col. of Ga.)
Clinical Assistant Professor/JHEP/Jacksonville

DAY, SAMUEL M., M.D., (Washington Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

FECHTEL, ALBERT T., M.D., (Tulane Univ.)
Clinical Instructor/JHEP/Jacksonville

FERGUSON, EMMET F., JR., M.D., (Med. Col. of Ga.)
Clinical Assistant Professor/JHEP/Jacksonville

FULMER, JACK T., M.D., (Western Reserve)
Clinical Instructor/JHEP/Jacksonville

GARONI, WILLIAM J., JR., M.D., (Emory)
Clinical Instructor/JHEP/Jacksonville

HAGAN, WAYNE V., M.D., (Univ. of Miami)
Clinical Instructor/JHEP/Jacksonville

HURLBUT, H. JOSEPH, M.D., (Emory Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

HUX, ROBERT HENRY, M.D., (Med. Col. of Va.)
Clinical Associate Professor

MOORE, WILLIAM R., M.D, (Emory Univ.)
Clinical Assistant Professor/Lake City

MOSELEY, THAD M., M.D., (Vanderbilt Univ.)
Clinical Professor/JHEP/Jacksonville

PEARCE, HERBERT R., M.D., (Univ. of Mississippi)
Clinical Instructor/JHEP/Jacksonville

PHILLIPS, CURTIS M., M.D., (Med. Col. of Ga.)
Clinical Associate Professor/JHEP/Jacksonville

REINSTINE, HARRY W., JR., M.D., (Univ. of Va.)
Clinical Professor/JHEP/Jacksonville

ROESCH, C. BURLING, M.D., (Cornell University)
Clinical Associate Professor/JHEP/Jacksonville

SMITH, LEWIS ALAN, M.D., (Univ. of Miami)
Clinical Instructor/JHEP/Jacksonville

SPINDLER, LOUIS J., Ph.D., (Florida State Univ.)
Assistant Professor and Assistant Professor,
Learning Resources/Lake City

STILL, ROBERT H., M.D., (Med. Col. of Ga.)
Clinical Assistant Professor/JHEP/Jacksonville

STUBBS, GEORGE M., M.D., (Emory Univ.)
Clinical Associate Professor/JHEP/Jacksonville

SUMNER, WILBUR C., M.D., (Med. Col. of Ga.)
Clinical Associate Professor/JHEP/Jacksonville

SWAMY, NANJUNDA, M.D., (Univ. of Mysore)
Clinical Assistant Professor/Lake City

WHELCHEL, C. DAVIS, III, M.D., (Med. Col. of Ga.)
Clinical Instructor/JHEP/Jacksonville

## Neurological Surgery

DAY, ARTHUR L., M.D., (Louisiana State Univ.)
Assistant Professor

GARCIA-BENGOCHEA, FRANCISCO, M.D., (Tulane)
Distinguished Service Professor

RHOTON, ALBERT L., JR., M.D., (Washington Univ.)
Professor and Chief

* SYPERT, GEORGE W., M.D., (Univ. of Washington)
Associate Professor, Surgery
Chief Neurological Surgery/VAH
Associate Professor, Neuroscience

VRIES, JOHN K., M.D., (Univ. of California)
Associate Professor Surgery and Pediatrics

**Volunteer Faculty**

BIRD, C. ASHLEY, M.D., (Emory Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

BOGGS, JOHN S., M.D., (Univ. of Michigan)
Clinical Assistant Professor/JHEP/Jacksonville

CAUTHEN, JOSEPH C., M.D., (Duke Univ.)
Clinical Associate Professor/Gainesville

FREEMAN, JAMES V., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/Gainesville

HUDSON, CALVIN H., M.D., (Univ. of Tennessee)
Clinical Associate Professor/JHEP/Jacksonville

MAULDIN, RONALD L., M.D., (University of N.C.)
Clinical Assistant Professor/Gainesville

## Otolaryngology

* BROWNELL, WILLIAM E., Ph.D., (Univ. of Chicago)
Assistant Professor, Surgery and Neuroscience

CASSISI, NICHOLAS, J., D.D.S., M.D.,
(Case Western Reserve, University of Miami)
Professor and Chief
Professor, Oral Surgery

* KARLAN, MARC S., M.D., (Univ. of Penn.)
Associate Professor

* SINGLETON, GEORGE T., M.D., (Baylor University)
Professor, Surgery
Chief of Otolaryngology/VAH

SMOLANSKY, STEPHEN, M.D., (George Washington U.)
Assistant Professor/JHEP/Jacksonville

**Volunteer Faculty**

FARRIOR, RICHARD T., M.D., (Duke University)
Clinical Professor/Tampa

FOOTE, PERRY A., JR., M.D., (Univ. of Florida)
Clinical Assistant Professor/Gainesville

GARLINGTON, JAMES C., M.D., (Yale Univ.)
Clinical Assistant Professor/Gainesville

GOLDMAN, NELSON, M.D., (Med. Col. of Ga.)
Clinical Instructor/JHEP/Jacksonville

NEEL, RUFUS G., M.D., (Univ. of Mississippi)
Clinical Instructor/Ocala

## Pediatric Surgery

MOAZAM, FARHAT, M.D., (Dow Med. Col., Pakistan)
Assistant Professor, Surgery and Pediatrics

* RODGERS, BRADLEY M., M.D., (Johns Hopkins)
Professor, Surgery and Pediatrics

TALBERT, JAMES L., M.D., (Vanderbilt)
Professor and Chief, Surgery and Pediatrics

**Volunteer Faculty**

HARRIS, BURTON H., M.D., (SUNY)
Clinical Assistant Professor/JHEP/Jacksonville

JONES, JIMMY E., M.D., (Univ. of Tennessee)
Clinical Assistant Professor
Surgery and Pediatrics, Pensacola

WEBB, H. WARNER, M.D., (Emory Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

WILKINSON, ALBERT H., JR., M.D., (Jefferson Univ.)
Clinical Associate Professor/JHEP/Jacksonville

## Plastic and Reconstructive Surgery

BINGHAM, HAL G., M.D., (Univ. of Kansas)
Professor and Chief

CAFFEE, H. HOLLIS, M.D., (Univ. of Florida)
Assistant Professor, Chief Plastic Surgery/VAH

**Volunteer Faculty**

DUNCAN, ROBERT E., M.D., (Indiana Univ.)
Clinical Associate Professor/JHEP/Jacksonville

DUSHOFF, IRA, M.D., (Univ. of Penn)

Clinical Associate Professor/JHEP/Jacksonville

FURLOW, LEONARD T., JR., M.D., (Washington Univ.)
Professor/Gainesville

HOGUE, ROBERT J., JR., M.D., (Univ. of Oklahoma)
Clinical Assistant Professor/Gainesville

KAMAL, MUHAMMAD A., M.D.,
(Chittagong Medical College, East Pakistan)
Clinical Instructor/JHEP/Jacksonville

KAPLAN, RAYMOND S., (Univ. of Florida)
Clinical Assistant Professor

KAYE, BERNARD L., D.M.D., M.D., (Harvard Univ.)
Clinical Professor/JHEP/Jacksonville

LLEWELLYN, JACK S., D.M.D., (Univ. of Alabama)
Clinical Assistant Professor/Gainesville

MORGAN, BERNARD L., M.D., (London Univ.)
Clinical Associate Professor/JHEP/Jacksonville

ROSENTHAL, SAMUEL G., M.D., (SUNY)
Clinical Instructor/JHEP/Jacksonville

SNYDER, GILBERT B., M.D., (Johns Hopkins)
Clinical Associate Professor/Miami

## Thoracic and Cardiovascular Surgery

ALEXANDER, JAMES A., M.D., (Duke University)
Associate Professor and Chief
Associate Professor, Pediatrics

KELLY, THOMAS F., M.D., (Creighton Univ.)
Assistant Professor/VAH

KNAUF, DANIEL G., M.D., (Northwestern University)
Assistant Professor

MOULDER, PETER V., M.D., (Univ. of Chicago)
Professor and Chief/VAH

SELBY, JOHN H. JR., M.D., (U. of Texas, Southwestern)
Assistant Professor

STRANAHAN, ALLAN, M.D., (Univ. of Tennessee)
Professor/JHEP/Jacksonville

**Volunteer Faculty**

COUSAR, JAMES E., M.D., (Johns Hopkins)
Clinical Associate Professor/JHEP/Jacksonville

DAVIS, JAMES M., M.D., (Harvard University)
Clinical Assistant Professor/JHEP/Jacksonville

INNIS, BRUCE J., M.D., (McGill Univ., Canada)
Professor/JHEP/Jacksonville

NUNN, DANIEL B., M.D., (Med. Col. of S.C.)
Clinical Assistant Professor/JHEP/Jacksonville

RAYL, JOHN E., M.D., (Univ. of Louisville)
Associate Professor, Lake City

SMITHWICK, WALTER, III, M.D., (Vanderbilt)
Clinical Assistant Professor/JHEP/Jacksonville

SNYDER, HAROLD E., M.D., (Vanderbilt)
Clinical Assistant Professor/JHEP/Jacksonville

## Urology

DRYLIE, DAVID M., M.D., (Bowman Gray Univ.)
Professor and Chief

* FINLAYSON, BIRDWELL, M.D., (Univ. of Chicago)
Professor

LEWIS, CHARLES W., JR., M.D., (Duke University)
Assistant Professor and Chief/JHEP/Jacksonville

WALKER, R. DIXON, M.D., (Univ. of Miami)
Professor of Surgery and Pediatrics

**Volunteer Faculty**

ACKERMAN, EDWARD, M.D., (Wayne State Univ.)
Clinical Associate Professor/Winter Park

BURT, JAMES N., M.D., (Univ. of Miami)
Clinical Assistant Professor/JHEP/Jacksonville

CRUM, PAUL M., M.D., (Univ. of Penn.)
Clinical Assistant Professor/JHEP/Jacksonville

DALTON, DAVID L., M.D., (Univ. of Tennessee)
Clinical Assistant Professor

DEARDOURFF, STEPHEN L., M.D., (Ohio State Univ.)
Clinical Assistant Professor/Gainesville

ECKELS, ALAN R., M.D., (Univ. of Florida)
Clinical Assistant Professor/JHEP/Jacksonville

FERGUSON, FREDERICK F., M.D., (Univ. of Arkansas)
Clinical Professor/Lake City

GONDER, FLOYD S., M.D., (Tulane University)
Clinical Assistant Professor/JHEP/Jacksonville

HUTCHINSON, WILLIAM M., M.D., (Hahnemann)
Clinical Associate Professor/JHEP/Jacksonville

JABLONSKI, DONALD V., M.D., (Wayne State Univ.)
Clinical Associate Professor/Winter Park

JILEK, JAROSLAV J., M.D.,
(Charles University, Czechoslovakia)
Clinical Instructor/JHEP/Jacksonville

KAELIN, JAMES E., M.D., (Univ. of Louisville)
Clinical Instructor

LEFFLER, NORMAN H., M.D., (Washington Univ.)
Clinical Instructor/JHEP/Jacksonville

McCULLY, ALVIN C., M.D., (Univ. of Tennessee)
Clinical Associate Professor/Tallahassee

NEWMAN, J. HAROLD, M.D., (Emory Univ.)
Clinical Assistant Professor/JHEP/Jacksonville

PORTERFIELD, JAMES M., JR., M.D., (Med. Col. of Va.)
Clinical Assistant Professor/Winter Park

ROLLINS, RALEIGH W., M.D., (Med. Col. of Ga.)
Clinical Assistant Professor/Tallahassee

SAPOLSKY, JACK L., M.D., (Univ. of Tennessee)
Clinical Assistant Professor/JHEP/Jacksonville

SMITH, H. LAWRENCE, M.D., (Jefferson Med. Col.)
Clinical Professor/Tallahassee

STOKES, JOSEPH B., M.D., (Bowman Gray)
Clinical Associate Professor/JHEP/Jacksonville

TIMMONS, JOHN W., JR., M.D., (Ohio State Univ.)
Clinical Assistant Professor/JHEP/Gainesville

VAN NORTWICK, WILLIAM A., M.D., (Vanderbilt)
Clinical Professor/JHEP/Jacksonville

WEBSTER, ROBERT N., M.D., (Washington Univ.)
Clinical Professor/Tallahassee

WHITTAKER, JOHN R., M.D., (Univ. of Ohio)
Clinical Assistant Professor/JHEP/Jacksonville

# MEDICAL STUDENTS

## Class of 1979

### Name/Hometown/Internship

BARBER, WILLIAM HENRY/Gainesville, FL
U. of Alabama Medical Center, Birmingham, AL

BATIE, DONNIE/Gainesville, FL
Earl K. Long Memorial Hospital, Baton Rouge, LA

BENTLEY, JODELLE LEA/Plantation, FL
U. of San Antonio Teaching Hospital, San Antonio, TX

BERRINGER, LYNN MERRITT/Auburndale, FL
Pensacola Educational Program, Pensacola, FL

BLAU, RICHARD HARRIS/North Miami Beach, FL
Los Angeles County U. of So. Calif., Los Angeles, CA

BODNAR, JUDITH KAY/Port Richey, FL
St. Luke's Hospital, Denver, CO

BRANTLY, MARK LOUIS/Winter Haven, FL
Eastern Virginia Graduate Medical School, Norfolk, VA

BRANTLY, PATRICIA POTTER/Atlantic Beach, FL
Eastern Virginia Graduate Medical School, Norfolk, VA

BROWN, MAUDE YVONNE/Jacksonville, FL
Jacksonville Hosp. Educ. Programs, Jacksonville, FL

BUSACCO, BRADLEY/Franklin, NJ
Cincinnati General Hospital, Cincinnati, OH

CAOS, ANTONIO/Miami, FL
U. of South Florida Affil. Hospitals, Tampa, FL

CARIDI, JAMES GARY/Stosset, NY
Shands Teaching Hospital, Gainesville, FL

CASSELS, JOHN WESLEY, JR./Clearwater, FL
William Beaumont Army Hospital, El Paso, TX

CHEW, FELIX SZE-KWAY/Coral Gables, FL
Shands Teaching Hospital, Gainesville, FL

CLARKE, ALISON TRINETTE/Opa-Locka, FL
U. of Miami Affiliated Hospitals, Miami, FL

COOK, PHILIP STUART/Coral Gables, FL
U. of Michigan Affil. Hospitals, Ann Arbor, MI

COULTAS, DAVID BRUCE/Havana, FL
U. of New Mexico Affil. Hospitals, Albuquerque, NM

CUMMINGS, STEPHEN FRANCIS/Providence, RI
Memorial Hospital, Pawtucket, RI

DAFNIS, DANA MICHAEL/Sarasota, FL
Union Memorial Hospital, Baltimore, MD

DeBRUIN, ROBERT JAY/Millbrae, CA
St. Mary's Hospital, San Francisco, CA

DUFF, LISA MARIE/Lake Park, FL
U. of South Florida Affil. Hospitals, Tampa, FL

DUNLAP, STEPHEN ALEXANDER/Manchester, CT
Maine Medical Center, Portland, ME

EWING, RALPH HAROLD, JR./Orange, TX
U. of South Alabama Hospitals, Mobile, AL

FELDMAN, ROBERT KEITH/Hallandale, FL
U. of Calif. Hospital, Davis, CA

FERNANDEZ, RICHARD DMITRI/Tampa, FL
U. of Texas Affil. Hospitals, Houston, TX

FERNANDEZ-DE-CASTRO, ENRIQUE JOSE/Havana, Cuba
Jacksonville Hosp. Educ. Programs, Jacksonville, FL

FIX, ALAN DAVID/Miami Beach, FL
Affil. Hospitals, Israel

FLOYD, IRA LENORRIS/Fort Pierce, FL
Charity Hospital, New Orleans, LA

FRIEDLAND, BETH RENA/Coral Gables, FL
U. of Florida College of Medicine, Gainesville, FL

GAGE, KATHLEEN ANNE/Ft. Lauderdale, FL
Pensacola Educational Program, Pensacola, FL

GALE, JOHN GODDARD, JR./Rullahoma, TN
Shands Teaching Hospital, Gainesville, FL

GARCIA, ROBERTO FRANCISCO/Miami, FL
U. of Miami Affil. Hospitals, Miami, FL

GOLDMAN, SHARON DALE/Jacksonville, FL
Baylor Affil. Hospitals, Dallas, TX

GORDON, RONALD JEFFREY/Baltimore, MD
Shands Teaching Hospital, Gainesville, FL

GOUWENS, DAVID FRANK/Bradenton, FL
Shands Teaching Hospital, Gainesville, FL

GRANT, EDMUND GUY, JR./Jacksonville, FL
Shands Teaching Hospital, Gainesville, FL

GRANT, MARIA BARTOLOMEO/Richfield, OH
Shands Teaching Hospital, Gainesville, FL

GRISAITIS, ANNE CLAIRBORNE/Birmingham, AL
Shands Teaching Hospital, Gainesville, FL

GROSSMAN, TERRY ALAN/Miami, FL
St. Joseph's Hospital, Denver, CO

GROVER, LINDA JANE/Seminole, FL
Shands Teaching Hospital, Gainesville, FL

HAIMES, DAVID MICHAEL/Tampa, FL
Richland Memorial Hospital, Columbia SC

HAMBLEY, WILLIAM CARTER, JR./Pineville, KY
U. of South Alabama Hospitals, Mobile, AL

HARRISON, WARREN RICHARDS, II/Lakeland, FL
Maricopa County Hospital, Phoenix, AZ

HIGHSMITH, JEROME CARL/Cleveland, OH
U. of San Antonio Teaching Hospital, San Antonio,TX

HOLDER, SHELLY LORRAINE/Jacksonville, FL
Jacksonville Hosp. Educ. Programs, Jacksonville, FL

HORWICH, JOAN ELIZABETH/Coral Gables, FL
Bridgeport Hospital, Bridgeport, CT

HUNT LORENA ESTELLE/Compass Lake, FL
U. of South Alabama Hospitals, Mobile AL

IRWIN, LELAND JOHN/St. Petersburg, FL
U. of Kentucky Affil. Hospitals, Lexington, KY

JACKSON, LORETTA ELIZABETH/Laurens, SC
U. of Louisville, Louisville, KY

JARRELL, MAUREEN ADELE/Gainesville, FL
Medical Center Hospital, Burlington, VT

JEGART, MICHAEL RUDOLF/Tallahassee, FL
Ochsner Foundation Hospital, New Orleans, LA

JENKINS, HULANNIE ANDREW/West Palm Beach, FL
Cincinnati General Hospital, Cincinnati, OH

JERNIGAN, JAMES ELISHA/Gainesville, FL
Roanoke Memorial Hospital, Roanoke, VA

JERNIGAN, JOHN ALBERT/Union Springs, AL
U. of Alabama Medical Center, Birmingham, AL

JOHNSON, ELSA ANN/Croton, NY
Children's Medical Center, Dallas, TX

JOHNSON, GREGORY LEON/Washington, DC
Boston U. Affil. Hospitals, Boston, MA

JONES, PATRICIA KATHY/Oak Ridge, TN
Washington U. Affil. Hospital, St. Louis, MO

JOSEPHSON, SUSAN PHYLLIS/Miami, FL
Cedars-Sinai Medical Center, L.A., CA

KING, CHARLES TOWNSEND/Rumson, NJ
U. of Kentucky Medical Center, Lexington, KY

KING, JOHN ALLEN/Tallahassee, FL
St. Joseph's Hospital, Denver, CO

KON, NEAL DAVID/Great Neck, NY
North Carolina Baptist Hospital, Winston-Salem, NC

KOWAL, LAWRENCE EDWARD/Rockledge, FL
Hahnemann Hospital, Philadelphia, PA

LEE, JOHN WESLEY, JR./Dunn, NC
Moses Cone Memorial Hospital, Greensboro, NC

LERNER, BRAD STEVEN/Hollywood, FL
N.C. Memorial Hospital, Chapel Hill, N.C.

LOCEY, MARTIN LAWRENCE/Largo, FL
Brooke Army Hospital, San Antonio, TX

LONG, JULIE ANN/Clearwater, FL
Washington U. Affil. Hospital, St. Louis, MO

LYONS, ROBERT WILLIAM/Elmhurst, NY
Highland General Hospital, Oakland, CA

McCORMACK, JOHN LAWRENCE/Long Branch, NJ
Public Health Service Hospital, New Orleans, LA

MANN, CHARLES HENRY, III/Jacksonville, FL
Spartanburg General Hospital, Spartanburg, SC

MILANI, RICHARD VIRGIL/Tampa, FL
Jacksonville Hosp. Educ. Programs, Jacksonville, FL

MILLER, VALERIE ELIZABETH/Sebring, FL
U. of Alabama Medical Center, Birmingham, AL

MINNIX, WILLIAM HENRY/Miami, FL
Jacksonville Hosp. Educ. Programs, Jacksonville, FL

MONSOUR, FREDERICK JOSEPH/Jacksonville, FL
U. of Virginia Hospital, Charlottesville, VA

MOORE, HOMER JACKSON, JR./Milledgeville, GA
Bethesda Naval Hospital, Bethesda, MD

NACKASHI, JOHN ANTHONY/Jacksonville, FL
Shands Teaching Hospital, Gainesville, FL

NGUYEN, CAM-HA THI/Gainesville, FL
U. of Calif. Affil. Hospital, Irvine, CA

NOLAN, ROBERT JOSEPH, JR./Titusville, FL
The Johns Hopkins Hospital, Baltimore, MD

OLSEN, JULIAN OLE, III/Gulf Breeze, FL
Georgia Baptist Hospital, Atlanta, GA

PACKER, JAY MORGAN/Tampa, FL
L.A. County U. of Southern Calif., L.A., CA

PALMER, SUZANNE JEANETTE/Venice, FL
Medical U. Hospital, Charleston, SC

PARYANI, SHYAM BHOJRAJ/Jacksonville, FL
U. of Texas Affil. Hospitals, Houston, TX

PEEBLES, MICHAEL WHIGHAM/Tallahassee, FL
U. of South Florida Affil. Hospitals, Tampa, FL

PERRY, JOHN CHRISTOPHER/Elliott City, MD
Roanoke Memorial Hospital, Roanoke, VA

RATTINGER, MARK DAVID/Palm Beach, FL
Vanderbilt U. Hospital, Nashville, TN

RAUM, MARY ELWYN/Panama City, FL
Shands Teaching Hospital, Gainesville, FL

REED, KATHERINE/Burton, OH
Washington U. Affil. Hospital St. Louis, MO

REID, STEVEN ALLEN/Opa Locka, FL
Shands Teaching Hospital, Gainesville, FL

ROBERTS, DAVID LUTHER/Conroe, TX
U. of Florida College of Med., Gainesville, FL

ROBERTSON, JOHN WILLIAM, JR./Knoxville, TN
Shands Teaching Hospital, Gainesville, FL

ROOKS, LARRY GLEN/Jacksonville, FL
U. of Fla/Alachua General Hospital, Gainesville, FL

SAFIAN, ROBERT DAVID/North Miami, FL
U. of California Affil. Hospitals, San Diego, CA

SCHLOSNAGLE, DAVID CARL/Rochester, MN
Emory University Hospital, Atlanta, GA

SCHOLEFIELD, JOHN HOOD/Sanibel, FL
Waterbury Hospital, Waterbury, CT

SCHWARTZ, FRANK R., III/Galena, OH
U. of South Alabama Hospital, Mobile, AL

SEIFERT, PAUL EDWARD/St. Petersburg, FL
Cook County Hospital, Chicago, IL

SHEPPARD, JOSEPH EARL/Gainesville, FL
Shands Teaching Hospital, Gainesville, FL

SHERIDAN, RICHARD JOSEPH/Ft. Lauderdale, FL
Le Bonheur Children's Hospital, Memphis, TN

SHERRILL, WILLIAM CHARLES, JR./Daytona Beach, FL
N. C. Baptist Hospital, Winston-Salem, NC

SMITH, CLEATIOUS DAVID/Jay, FL
U. of South Alabama Hospital, Mobile, AL

SMITH, RANDY VINCENT/Largo, FL
Shands Teaching Hospital, Gainesville, FL

SORENSEN, DOUGLAS PAUL/Indian Harbour Beach, FL
Georgia Baptist Hospital, Atlanta, GA

SPEAR, JOHN MICHAEL/Mount Dora, FL
Vanderbilt U. Hospital, Nashville, TN

STAFFORD, PERRY WORTHINGTON/Riverside, RI
Portsmouth Naval Hospital, Portsmouth, VA

STEIN, STEWART WAYNE/Jacksonville, FL
U. of Calif. Affil. Hospitals, San Diego, CA

STRASSLER, DAVID MARK/Deerfield Beach, FL
York Hospital, York, PA

SUE-LING, KEITH/Washington, DC
Eugene Talmadge Hospital, Augusta, GA

THOMPSON, LENARDO DANNY/Pensacola, FL
Walter Reed Army Hospital, Washington DC

TULLEY, CHARLES ALOYSIUS, III/Jacksonville, FL
Tallahassee Memorial Hospital, Tallahassee, FL

UNIS, MARK EMMETT/Deerfield Beach, FL
Shands Teaching Hospital, Gainesville, FL

VAN DYKE, JERROLD ARTHUR/Sarasota, FL
Barnes Hospital Group, St. Louis, MO

VERLANDER, J. MICHAEL, JR./Maitland, FL
Emanuel Hospital, Portland, OR

WARNER, JOSEPH JAMES/Ft. Myers, FL
Eastern Virginia Graduate Med. Sch., Norfolk, VA

WEEMS, MARION DUDLEY/Boynton Beach, FL
U. of Missouri Medical Center, Columbia, MO

WEISS, GARY MICHAEL/Valley Stream, NY
U. of South Florida Affil. Hospital, Tampa, FL

WELLS, RALPH K./St. Petersburg, FL
Pensacola Educational Program, Pensacola, FL

WILDS, BENJAMIN JAMES, JR./Sacramento, CA
Keesler Air Force Base Hospital, Biloxi, MS

WILK, STEVEN MICHAEL/West Palm Beach, FL
Franklin Square Hospital, Baltimore, MD

WILLIARD, MARK R.V./Merritt Island, FL
U. of Virginia Hospital, Charlottesville, VA

WISHIK, JERRY ALAN/Margate, FL
U. of South Florida Affil. Hospitals, Tampa, FL

WOODS, ANDREW MICHAEL/Dothan, AL
Shands Teaching Hospital, Gainesville, FL

YAVELOW, STEPHEN LEONARD/Lake Worth, FL
Montefiore Hospital, New York, NY

YEARTA, GEORGE MARSHALL/Cocoa Beach, FL
Anderson Memorial Hospital, SC

YOUNG, ERIC KEVIN/Ft. Pierce, FL
Floyd Hospital, Rome, GA

## Class of 1980

ADKINS, LOWELL ANTHONY/Vero Beach, FL
ALEXANDER, MICHELLE DENISE/Hollis, NY
ANDERSON, WARNER J./St. Petersburg, FL
APPLETON, ROBERT SCOTT/North Miami, FL
ARMOUR, JAMES CALHOUN/Miami, FL
ATKINS, JAMES SUTLIVE, JR./Miami, FL
AQUINO, VINCENT/North Ft. Lauderdale, FL
BARISH, CHARLES FRANKLIN/Lake Worth, FL
BENDER, KAREN SUE/Tamarac, FL
BIGMAN, ORIN LAWRENCE/Los Angeles, CA
BLAND, REGINA SUZANNE/Ft. Pierce, FL
BLUETT, MICHAEL KENNETH/Marathon, FL
BROER, LOIS AMELIA/Winter Haven, FL
BROOKS, DON FREDERICK/Bonifay, FL
BROOKS, MELANIE GALE/St. Petersburg, FL
BROXTON, KYREL DARICE/Pensacola, FL
BUEHLER, MARK DAVID/Ormond Beach, FL
BURNISON, THOMAS BEN/Reese, MI
BURTCH, GORDON DAVID/Ft. Lauderdale, FL
BYRD, BILL HENRY, JR./Sarasota, FL
CHEATHAM, ALVIN EVERETT/Riviera Beach, FL
CHERESNICK, JOEL DAVID/East Meadow, NY
CLEMENZI, REBECCA ANN/Jacksonville, FL

COLEMAN, STEPHEN RAY/Winter Park, FL
COOK, FRANK FORSHEE/Satellite Beach, FL
COOPER, DENNIS JEFF/Miami Beach, FL
CORNELL, ANGELA PENDLEY/Nortonville, KY
COWAN, DAVID FRANKLIN, JR./Orlando, FL
DAY, ROBERT CLAY/Tallahassee, FL
DECI, DAVID MICHAEL/Jensen Beach, FL
DENISCO, RICHARD ALAN/Miami, FL
DiDEA, MARK BRIAN/Orlando, FL
DIEZ, MAURO EDWARD/Ft. Lauderdale, FL
DRAKE, JERRY WARREN/Coral Springs, FL
DUERR, ANN ELIZABETH/Islamorada, FL
DUNN, LUCKEY McKEE/Daytona Beach, FL
FERGUSON, THOMAS WILCOX/Waverly, TN
FINGERLE, RICHARD ERNEST/Land O'Lakes, FL
FLETCHER, STEVEN RICHARD/Treasure Island, FL
FULLERTON, RICHARD NELSON/Melbourne, FL
GALCERAN, MANUEL JAIME/Miami, FL
GAREN, PAUL DOUGLAS/Jacksonville, FL
GEFELLER-VARGA, DORLINDA/Florence, NJ
GLICKMAN, JEFFREY LEE/Indialantic, FL
GRAVENSTEIN, NIKOLAUS/Shaker Heights, OH
HARDING, DAVID RONALD/Orlando, FL
HENDERSON, DOROTHY JANE/Gainesville, FL
HENDLEY, LEON/Ft. Pierce, FL
HEROLD, ARTHUR HARRY/Plant City, FL
HIPSKIND, MARY VIRGINIA/Ft. Lauderdale, FL
HOOD-LEWIS, MARGARET ELIZABETH/Sarasota, FL
HUBER, JONATHAN STEPHEN/Ft. Pierce, FL
HULL, DAVID/Tamarac, FL
HUME, RODERICK FULTON, JR./Marietta, GA
HUNSINGER, SUSAN YURGEL/Ft. Lauderdale, FL
JACKSON, RALPH ABRAHAM/Jasper, FL
JACOBSON, HAL MARTIN/Hollywood, FL
JACOBSON, PAUL ALLEN/Coral Gables, FL
JEAN, PATRICK RENE/Oldsmar, FL
KAPLAN, BARRY JON/Lakeland, FL
KILPATRICK, TIMOTHY MICHAEL/Orlando, FL
KINGERY, DAVID REDDING/Hattiesburg, MS
KROPP, THOMAS MICHAEL/Bradenton, FL
LAMBERT, CHARLES RICHARD/New Orleans, LA
LEIBMANN, SUSAN/St. Petersburg, FL
LICHTENFELD, NORMAN STEVEN/N. Miami Bch., FL
LINDBERG, DAVID SEAMAN, JR./Covington, LA
LIU, WILLIAM FRANK/Port Charlotte, FL
MACE, JENNIE ABIGAIL/Gainesville, FL
MACON, JOSHUA/St. Petersburg, FL
MARSH, MICHAEL STEVEN/Orlando, FL
MARTIN, LISA WARSINGER/Chevy Chase, MD
McMAHILL, PHILIP CONRAD/Winter Park, FL
McNAMARA, JOHN J./Jackson Heights, NY
MELVIN, JOHN THAMES/Tallahassee, FL
MERLIN, TOBY LARRY/Atlanta, GA
MIKHAIL, MAGED SAMIR/Seminole, FL
MULICK, ARTHUR LESLIE/Miami, FL
MYERS, WENDY ANN/Centre Hall, PA
NELSON, LAURA JEAN/Gainesville, FL
OLIFANT, DAVID MITCHELL/North Miami Bch., FL
ORTEGA, EDITH MARIE/Miami, FL
PAGANINI, CYNTHIA ANDERSON/Gainesville, FL
PALMER, JILL ANITA/Lighthouse Point, FL
PAQUETTE, CELESTE MARIE/Pinellas Park, FL
PEARSE, DAVID BENNETT/Dunedin, FL
PRICE, NANCY J./Ft. Smith, AR
PURDY, LAURENCE JEFFREY/Gainesville, FL
REIMER, RONALD/Tamarac, FL
RICHARDS, FERDINAND, III/Tampa, FL
RICHARDSON, ROBERT HOWARD/Philadelphia, PA
ROGOZINSKI, ABRAHAM/Jacksonville, FL
SCUDDER, SIDNEY ALEXANDER/Atlantic Beach, FL
SHAY, GREGORY FRANCIS/Satellite Beach, FL
SHEDD, JOHN GRAVES/St. Petersburg, FL
SHOEMAKER, DAVID WILLIAM/Miami, FL
SIMS, ROBERT PETER/Gainesville, FL
SINGER, CLIFFORD MILO/North Miami Beach, FL
SMITH, PAUL HOWARD, JR./Gainesville, FL
SNYDLE, FRANK EMIL/Bradenton Beach, FL
SPIEGEL, JOAN HILARIE/Miami, FL
STERN, LOUIS/Lakeland, FL
SWAIN, SANDRA META/Palm Harbour, FL
THRIFT, ROLLIN LOUIS/Oak Ridge, TN
TINTNER, RONI/Houston, TX
TREMBLAY, GERALD FABIAN/Orlando, FL
VAN ELDIK, RICHARD BRUCE/Lantana, FL
VELLMAN, WILLIAM PETER/Lake Park, FL
WADATZ, DALE EMIL/Cooper City, FL
WADE, MARK JEFFREY/Washington, DC
WATERMAN, DIEDRICH COLLINS, Delray, Beach, FL
WATERS, RAYMOND STUART/Gainesville, FL
WEBSTER, ELLA MAE/Monticello, FL
WESTGATE, STEVEN JUDSON/Sanibel Island, FL
WITTE, PAUL THOMAS/Ft. Lauderdale, FL
ZINGARELLI, WILLIAM JOSEPH/Ft. Lauderdale, FL
ZORNOW, MARK HERBERT/Ft. Lauderdale, FL

## Class of 1981

ACOSTA, RUDOLPH, JR./ Tampa, FL
ALLEN, VIVIAN JOANN/Jacksonville, FL
ANASTASIADES, KONSTANTINOS D./Ormond Bch., FL

ANDERSON, NORMAN HENRY/Winter Park, FL
BARTON, WILLIAM PETER/St. Petersburg Bch., FL
BIVENS, JOSEPH KURT/Bradenton, FL
BRILL, ROBERT JOHN/Gainesville, FL
BROCK, JOHN CHRISTOPHER/Safety Harbor, FL
BROWN, DAVID GERALD/Liverpool, N.Y.
BUTDORF, STEVEN JOSEPH/North Palm Beach, FL
CALLAHAN, PRISCILLA RUTH/Panama City, FL
CARLSON, CHRISTEL ANN/Ft. Walton Beach, FL
CLARKE, LISA TUMARKIN/Miami, FL
CLINE, MARTHA ANN/Gainesville, FL
CLOWER, JAMES WESLEY, III/Daytona Beach, FL
COLE EDWARD LESLIE, III/St. Petersburg, FL
COOPER, WILLIAM HENRY, IV/Jacksonville, FL
DAVIES, LAURIE KAY/Lantana, FL
DREYER, WILLIAM JEFFREY/St. Petersburg, FL
DRUCKER, MITCHELL DAVID/North Miami Beach, FL
DUGONI, JAMES EDWARD/Miami Shores, FL
DUPREY, PATRICIA ANN/Melbourne, FL
EVANS, BUSSIE ANTHONY/Panama City, FL
FADEM, JEROLD JOSEPH, JR./Orlando, FL
FARMER, GERRY BOYD/Tampa, FL
FLOYD, JAMES GERALD/Jacksonville, FL
FRENCH, LORRIE MARIE/Lake Worth, FL
GARRISH, MARY TERESE/Ft. Lauderdale, FL
GEHRET, DAVID ALLEN/Norristown, PA
GEISLER, ROBERT FRANCIS/Gainesville, FL
GLASSMAN, DEBRA SUE/North Miami Beach, FL
GOLDBACH, JAMES DAVID/St. Petersburg, FL
GOWER, DAVID JOHN/Largo, FL
GRANGE, DOROTHY KATHERINE/Tampa, FL
GREEN, JAMES RUSSELL, III/Gainesville, FL
GROCHOWSKI, YVONNE LYNNE/Sarasota, FL
HAMLIN, ANDREA JEAN/Largo, FL
HAMPTON, ARCHIBALD ALEXANDER/Alachua, FL
HARTLEY, JOHN THOMAS, III/Indialantic FL
HARTSFIELD, MEL CHARLES/Tallahassee, FL
HARVEY, STANLEY CHAD/Gainesville, FL
HEHN, RUDOLPH JAKOB/Ft. Pierce, FL
HENDRICKS, MICHAEL WILLIAM/Daytona Beach, FL
HENDRICKS, PAUL MEREDITH/Tallahassee, FL
HERRING, DUANE ALFORD/Malone, FL
HICKMAN, GUY HERBERT, JR./Miami Shores, FL
HOLDSAMBECK, HERBERT KIRK/Alexander City, AL
INGRAM, DALE CLIFFORD/Pompano Beach, FL
JOHNSON, INGRID DIANE/Panama City, FL
JONES, FRANK RICHARD/Lynn Haven, FL
JORDAN, THOMAS EDISON, JR./Orlando, FL
KELLY-DOKUBO, IDUAMA B./Rivers State, Nigeria
KENT, CHARLES WALLACE/DeFuniak Springs, FL
KING, PATRICIA PRINCESS/Cocoa Beach, FL
KORY, WILLIAM PAUL/Tampa, FL
KRAFT, STEVEN MARTIN/Daytona Beach, FL
KRAM, HARRY BERNARD/Kfar-Sabe, Israel
LAWSON, DANIEL LEATH/Gainesville, FL
LEAVY, KATHLEEN ANN/Daytona Beach, FL
LEDBETTER, DAVID JAMES/Winter Park, FL
LESSER, JOHN RAYMOND/Miami Beach, FL
LOFTON, STEVEN ALAN/Gainesville, FL
LOWE, LEONARD ALEXANDER/Key Largo, FL
McCAIN, ELEANOR ANNE/Lynn Haven, FL
McDONALD, THOMAS VINCENT/Winter Park, FL
McMILLAN, VICTOR MAURICE/Quincy, FL
MAJEWSKI, PATRICIA ANN/Lighthouse Point, FL
MALTESE, CARL PETER/Seminole, FL
MARTIN, LAURA SUSAN/Tallahassee, FL
MARUNIAK, DANIEL DAVID/Eustis, FL
MIHALCIK, JAMES ANDREW/Valparaiso, FL
MILTENBERGER, CHESTER DANIEL, JR./Orlando, FL
MOORE, JAMES DANIEL/Dallas, TX
MOORE, WILLIAM FREDERICK, JR./Jacksonville, FL
MORRISON, SIDNEY EMMETT, III/Ft. Lauderdale, FL
MUDRA, STEVEN ALAN/Lerna, IL
NOVAK, RUSSELL WARREN/Jacksonville, FL
OLIVO, PAUL DAVID/Waltham, MA
PAIGE, ROBERT MICHAEL/Ft. Lauderdale, FL
PAINE, JONATHAN TREAT/Miami, FL
PASCALE, MARK STEPHEN/Atlanta, GA
PICOLO, WESLEY VINCENT, JR./Tallahassee, FL
PODNOS, STEPHEN DANIEL/Rockledge, FL
PRUITT, JOHN CRAYTON, JR./St. Petersburg, FL
QUINTESSENZA, JAMES ANTHONY/Plantation, FL
REKUC, GREGORY MATTHEW/Tamarac, FL
RICO, MARY JOYCE/Miami Shores, FL
ROBINSON, CLIFF, JR./Montgomery, AL
ROWAN, FRANK JOSEPH, III/Largo, FL
RUDDERMAN, RANDAL HALE/Gainesville, FL
SALZBERG, CHARLES ANDREW/Lauderhill, FL
SANDERS, CHARLES RICHARD/Tallahassee, FL
SCHONWETTER, BARRY STUART/N. Miami Bch., FL
SELIGMAN, IVAN JON/Bal Harbour, FL
SELINKO, VERA LIDIA/Lighthouse Point, FL
SHEETS, CINDY SUE/Ft. Myers, FL
SHEIKH, KHALID HASON/Gainesville, FL
SHEINFELD, JOEL/Las Mercdes Caracas, Venezuela
SHERREL, JOSEPH THOMAS/Marianna, FL
SIMMONS, KEVIN STEWART/Melbourne, FL
SIROIS, RONALD CHARLES/Tallahassee, FL
SMITH, JOHN TAYLOR/Gainesville, FL
SOUDER, MARVA LANETTE/Gainesville, FL
STANLEY, HOLLY LYN/Delray Beach, FL

SWEZEY, TERRY LEITH/Jensen Beach, FL
TOBIS, GARY LAWRENCE/Miami Beach, FL
TORTORELLA, MICHAEL JAMES/Patchogue, NY
TRAVIS, WILLIAM DAVID/Gainesville, FL
VALLARIO, LAWRENCE EDWARD/N. Miami Beach, FL
VEGA, ANDRES/Hialeah, FL
VEGA, FLOR ANA MAYORAL/Miami, FL
VIVAS, SIGIFREDO/West Palm Beach, FL
WEBBER, PATSY JEAN/Columbus, MS
WENZEL, SALLY ELLEN/Gainesville, FL
WILKENS, KAREN SUE/North Vernon, IN
ZEANAH, WILLIAM ROSS/Gainesville, FL

## Class of 1982

ADKINS, MARK ALLEN/Key West, FL
ALTFEDER, DAVID/Great Neck, NY
ARISTIGUETA, MARIA TERESA/Temple Terrace, FL
BARNES, SYDEL YVETTE/Tampa, FL
BEN, KEVIN CHARLES/Miami, FL
BENTLEY, HELENA KAREN/Atlanta, GA
BETHEL-AYBAR, SONYA NADINE/Miami, FL
BOGGS, WILLIAM MORRIS/Sherwood, AZ
BOUZA, MARTHA/Miami, FL
BOYCE, STEPHEN EUGENE/Odessa, FL
BRETTON, PAUL RICHARD/Ft. Lauderdale, FL
BRITO, MIGUEL ANGEL, JR./Coral Gables, FL
BROESEKER, TIM ALAN/St. Petersburg, FL
BROOKS, HAROLD LOGAN, JR./Bradenton, FL
BROWN, MICHAEL BARNETT/Live Oak, FL
CALLAN, EDWARD JAMES/Altamonte Springs FL
CAMPS, JOSEPH LEVONNE, JR./Gainesville, FL
CARTER, MARK MICHAEL/Boca Raton, FL
CAZENAVE, CRAIG RICHARD/Belmont, CA
CHURCH, JOANNE CAROL/St. Paul, MN
CLEVENGER, FREDERICK WILLIAM/Tallahassee, FL
DANIEL, JAMES SCALES/Anniston, AL
DAVENPORT, WILLIAM HUGHES/Miami, FL
DAVIES, DOUGLAS JEFFREY/Carrollton, TX
DAVIS, MITCHELL HARDY/Donalsonville, GA
DIEHR, JERRY ALAN/Tampa, FL
ELSBREE, SCOTT BYRON/Longboat Key, FL
ENGSTROM, DAVID HALE/Plantation, FL
FARBER, RICHARD DAVID/Hollywood, FL
FARRINGTON, PAMELA FAYE/Ft. Lauderdale, FL
FLOYD, CHARLES TIMOTHY/Greenville, SC
FORD, MICHAEL JOHN/Palm Beach Gardens, FL
FORMAN, ROY MICHAEL/Cape Coral, FL
FREXES, MARIA ESTILITA/Coral Gables, FL
GEARHARD, THOMAS EDWARD/Atlantic Beach, FL
GRAY, WALTER JAMES/Vero Beach, FL
GRIMMETT, ELIZABETH VOORHIES/Tallahassee, FL
GROSSLIGHT, KENNETH RUSSELL/Tallahassee, FL
GUTOWSKI, GREGG WALTER/Tallahassee, FL
GUY, WILLIAM EUGENE/Tallahassee, FL
HADLEY, HOLLY/West Palm Beach, FL
HANNAN, STEPHEN EDWARD/Concord, MA
HARDGES, JOHNNY MACK/Lisman, AL
HARDING, SUSAN MARIE/Hollywood, FL
HARRISON, LAURA ALDEN/Gulf Breeze, FL
HARTZOG, GRADY ROAN, III/Melbourne, FL
HAWLEY, KATHERINE PIERCE/Dunedin, FL
HERZOG, LONNIE/Hallandale, FL
HOOD, WILLIAM HENRY/Ft. Pierce, FL
HOWARD, JANE ELLEN/Gainesville, FL
JARDINES, LORI TETLOW/Holyoke, MA
JOHNSON, VERNON NATHANIEL/Cambridge, MD
JOHNSON, WILLIAM THURSTON/Silver Springs, MD
KANTRALES, GEORGIA ANN/Pensacola, FL
KING, FORREST JOSEPH, JR./Pensacola, FL
KNOBLOCK, MARY KEVIN/Milton, FL
KREHER, ALEXANDER VAUGHN, JR./Tampa, FL
LAMAY, CHERYL ANN/Meridian, ID
LANZILLO, JOSEPH HEINRICH/Hollywood, FL
LAUDA, CARMEN MARIA/Hialeah, FL
LEHR, JANET ELAINE/Shalimar FL
LEONE, BRUCE JAMES/Miami, FL
LEVINE, IRA KEITH/Miami Beach, FL
LIBERT, DAVID ALPHA/Altamonte Springs, FL
LICITRA, CARMELO MARIO/Winter Park, FL
LIPPINCOTT, MARGUERITE GILKEY/Marion SC
McAULIFFE, JOHN ANTHONY/Hallandale, FL
McNEELY, RAYMOND LLOYD/Miami, FL
MARSHALL, JOHN JEFFREY/Gulf Breeze, FL
MARTIN, LARRY CHRISTOPHER/Miami, FL
MARTIN, RICHARD GEORGE/DeLand, FL
MARTIN, ZACHARY BERNARD, JR./Orange Park, FL
MELVIN, WADE HOWARD/Altha, FL
MILLAN, JOSEPH MARION/Jacksonville, FL
MOJCIK, MICHAEL STEPHEN/Stratford, CT
MULLERSMAN, JERALD ERIC/Gainesville, FL
MUSFELDT, CHARLES DAVID, JR./Hoffman Ests, IL
NGUYEN, TIEN QUANG/Pensacola, FL
OLYMPIO, MICHAEL ALLEN/Pembroke Pines, FL
OUJEWOLK, AMERICA VICTORIA/Sebring, FL
POLLACK, AMY ELLEN/Miami Beach, FL
POMERANTZ, JAY IRA/Peekskill, NY
RANDOLPH, TOMMY LaVAUGHN/Live Oak, FL
RICHMOND, LESLIE JAMES/Memphis, TN
RUBIN, JAY JONAS/Miami, FL

RUDOLF, PAUL MALCOLM/New York, NY
SALTZ, BRUCE LAWRENCE/Boca Raton, FL
SAYLES, WILLIAM ALEXANDER/Ft. Pierce, FL
SCHEMMER, GARY BRYAN/Winter Haven, FL
SCHIEBLER, MARK LINCOURT/Gainesville, FL
SHARKEY, DANIEL EMMETT/Largo, FL
SIMMONS, ZACHARY/Cape Coral, FL
SINGER, ILENE ROBIN/N. Palm Beach, FL
SIRAGUSA, ROY JOSEPH/Bronxville, NY
SLOAN, GREGORY KEITH/Chipley, FL
SMITH, ROSELLA DOREEN/Tampa, FL
SMITH, WILLIAM JOHN/W. Palm Beach, FL
STILES, CRISTINA MARIE/Green Cove Springs, FL
ST. MARY, EDWARD WILLIAM/Miami, FL
THIGPEN, RAMON LEE, JR./Crestview, FL
TRIGG, LANCE PAULL/Tampa, FL
ULLMAN, SAUL/N. Miami Beach, FL
URQUHART, MURRAY LINTON/Melbourne, FL
VELDHUIS, MICHAEL JONATHAN/Dodge Centre, MN
WALKER, ERIK CHARLES/Cocoa Beach, FL
WALLACE, ROBERT JENNINGS/St. Petersburg, FL
WARD, KENNETH JOSEPH/Plantation, FL
WEGRYN, TARA LEE/Sanibel, FL
WEITZENKORN, DAN EDWARD/Lakeland, FL
WELCH, JAMES LUMBERTON/Jacksonville, FL
WHITED, DELANA PHILLIPS/Eglin AFB, Fla.
WOLFSON, AARON HOWARD/Tampa, FL
WOODS, DEBRA CONRAD/Rockville, MD
ZABAK, DIANE MARIE/Tampa, FL
ZEILER, STEVEN BURTON/Grissom AFB, IN

# GRADUATE STUDENTS

## Anatomy

BIRNBAUM, DAVID B./Savannah, GA
PARDO, RUBE J./Coral Gables, FL
PIESCO, NICHOLAS P./Havre De Grace, MD

## Biochemistry & Molecular Biology

BRADLEY, JANICE/Canyon, TX
BUHI, WILLIAM/Hamilton, OH
CARVALHO, ANA DE FATIMA/Fortaleza-Ceara, Brazil
CROWL, ROBERT/Misenheimer, NC
DENNY, JOHN B./San Antonio, TX
ELLER, MARK/Granite Quarry, NC
FELDMAN, GEORGE/New York, NY
FORT, FARREL/Ocala, FL
HARVILLE, TERRY O./Groveland, FL
IDE, MARY LOUISE/North Dighton, MA
KALIN, JACK R./Sayre, PA
LAPOINTE, DAVID/Greenfield, MA
LICHTLER, ALEX C./Newburg, NY
LUCISANO, LEO J./Brooklyn, NY
MA, PHYLLIS C./Taipei, Taiwan
MELO, MURILO DE/Campinas, Brazil
MULLINS, DEBORRA E./Winter Haven, FL
OESWEIN, JAMES O./Lexington, KY
SAFFEN, JR., EUGENE E./Eustis, FL
SCHIEBER, GRETCHEN L./Winter Park, FL
SIERRA, LUIS FELIPE/Santiago, Chile

## Immunology and Medical Microbiology

ABRUZZINI, ANTHONY F./Baltimore, MD
AXELROD, BENNETT J./New York, NY
BITTNER, ANNA K./Orlando, FL
BRAGG, SANDRA L./Deland, FL
CHEUNG, ANDREW K./Hong Kong
COGLIANO, ROBERT/Pembroke, MA
CRAWFORD, PATTI C./Greensboro, NC
* DONNELLY, CYNTHIA/Artesia, NM
FAITH, ROBERT E./El Paso, TX
FAULMANN, ERVIN L./Bozeman, MT
FISCH, HARVEY/Daytona Beach, FL
FITZGERALD, JOHN E./Springfield, MA
GILES, ROBERT C./Tupelo, MS
GLENN, JERRY D./Spangler, PA
GOAD, ELLIS W./Chickasha, OK
HALL, BRUCE T./Santa Maria, CA
JADUS, MARTIN R./Wilmington, DE
KRIS, RICHARD M./East Meadow, NY
MARCINKO, JOANN/Ft. Walton Beach, FL
OSTROVE, JEFFREY M./Queens Village, NY
POWELL, JAMES THOMAS/Bethesda, MD
RAWLINS, DAN R./Douglas, GA
RAYFIELD, MARK A./Miami, FL
RICKLES, RICHARD J./Miami Beach, FL
ROTHENBERG, RICHARD A./Hicksville, NY
ROWE, THOMAS C./Boulder, CO
RUFF, MICHAEL R./Randolph, NJ
RUSCHE, JIM R./LaCrosse, WI
SAMULSKI, RICHARD J./North Augusta, GA
THOMPSON, JAMES PHILLIP/Jacksonville, FL
TOBEY, MARILYN/Ft. Bragg, NC

* Students pursuing M.S. degrees

VAN DYKE, TERRY ANNE/Crystal River, FL
WEBER, RICHARD J./Ransom, IL
WHEELER, TIMOTHY T./Ft. Lauderdale, FL
YETTER, ROBERT A./Atlanta, GA

## Neuroscience

ABRAHAM, WICKLIFFE C./Hagerstown, MD
* ALVAREZ, IDANIA M./Corona, CA
BRALLEY, JAMES A./Decatur, IL
COHEN, RICHARD H./Youngstown, OH
CRANDALL, JAMES E./Washington, IL
DELANOY, RICHARD L./Silver Spring, MD
FLESHMAN, JAMES W./Sierra Madre, CA
GRAFE, MARJORIE R./Portland, OR
GRAY, HARRY E./Rochester, NY
GUILD, AUDREY LEE/Houston, TX
HUNTER, GALE D./St. Louis, MO
JASPER, THOMAS W./San Leandro, CA
KUBANIS, PATRICIA J./Bethesda, MD
LOFTON, STEVE A./Pensacola, FL
LUCK, MARY M./New Orleans, LA
MANIS, PAUL B./Terra Bella, CA
MOODY, SALLY A./Eagle Mills, NY
RITZ, LOUIS A./Utica, NY
TINTNER, RONI/Miami, FL

## Pathology

CHI, DENNIS C./Taipei, Taiwan
* COLLINS, BOBBY RAY/Winston-Salem, NC
ELDER, MELISSA E./Orlando, FL
FUGE, LINDA N. K./Hollywood, FL
* GOAD, ELLIS WAYNE/Gainesville, FL
HENSON, VICTORIA L. K./Shamrock, FL
IVERSON, WILLIAM O./Gainesvile, FL
KARNES, HOWARD T./Peoria, IL
* NGUYEN, HAI THANH/Vietnam
* NOGA, STEPHEN J./York, PA
PARRATTO, NANETTE P./Ambler, PA
PHILLIPS, CATHERINE A./Cocoa, FL
RUIZ, PHILLIP, JR./Tampa, FL
THOMAS, LISA/Jacksonville, FL
WAHL, TIMOTHY M./Gainesville, FL
* WISEMAN, SANDRA L./Gainesville, FL

## Pharmacology & Therapeutics

ADKINS, MARK A./Key West, FL
CHU, CHUN-JUNG/Hsinchu, Taiwan
DOYLE, JAMES WILLIAM/Rockville, VA
FERRERO, JAMES L./Gary, IN
GLANT, SUSAN/Galveston, TX
HAWKE, ROY L./Pensacola, FL
HELLER, MARK R./Quakertown, PA
KIRNER, DEBORAH L./Sumter, SC
STRATTAN, CHARLES E./Lakeland, FL
TOWN, CHRISTOPHER/Sea Island City, NJ

## Physiology

BARBEE, ROBERT WAYNE/Greensboro, NC
* BRYAR, BETSY ANN/Geneseo, NY
* BURNS, FRANCIS J./Gainesville, FL
CHIRTEL, STUART JAY/Wilmington, DE
FRISINGER, JAMES E./Gainesville, FL
GOLDMAN, RICHARD A./New York, NY
* LEONPAHCER, ROBERT J./Lafayette, LA
MacINTOSH, BRIAN R./Owen Sound, Ontario, Canada
* MILLER, EMILY ANN/Tampa, FL
PETERSON, COBERN V./Victoria, TX
SCAMMELL, JONATHAN G./Surrey, England
SCHMEISSER, ELMAR T./Palo Alto, CA
TOD, MARY LEE/Lake Jackson, TX
WINIKOR, ISRAEL/Casselberry, FL